

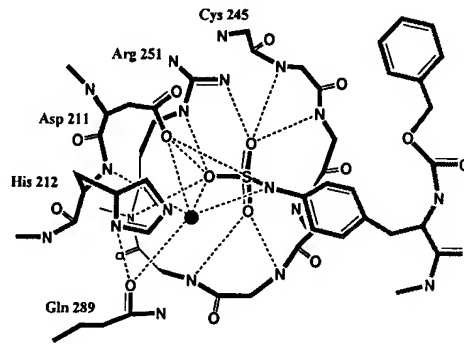
**FIGURE 1**



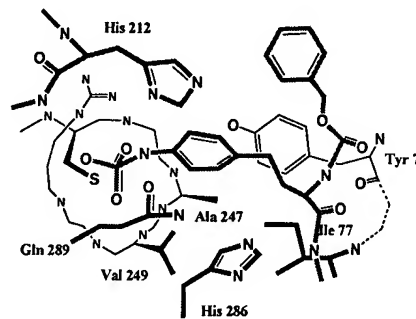
**FIGURE 2**



**FIGURE 3**



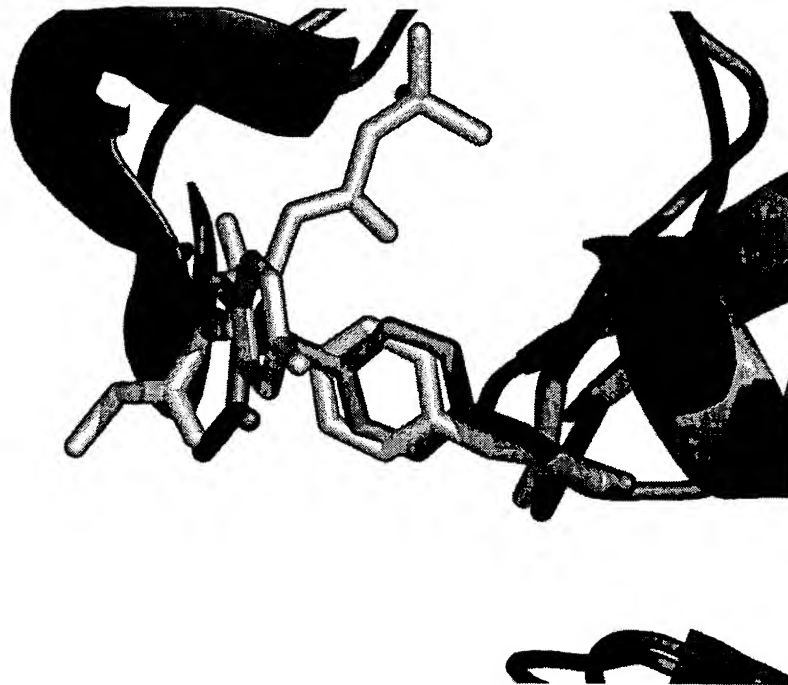
(a)



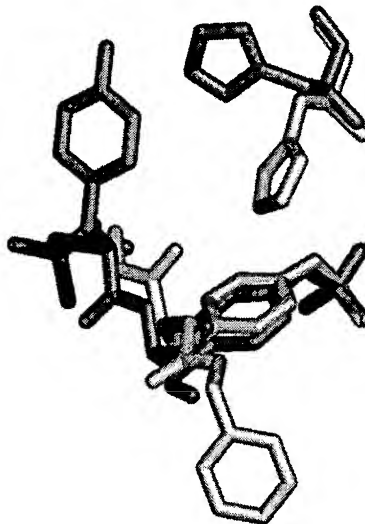
(b)

FIGURE 4





**FIGURE 5**



**FIGURE 6**

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Three Dimensional Coordinates of HPTPbeta

CRYST1	61.890	71.535	70.345	90.00	93.25	90.00	
ATOM	1	N	LYS A 19	12.885	20.303	21.460	1.000106.97
ATOM	2	CA	LYS A 19	12.939	19.537	20.223	1.000 85.75
ATOM	3	CB	LYS A 19	13.192	20.422	19.007	1.000 87.72
ATOM	4	CG	LYS A 19	11.902	20.923	18.320	1.000 95.27
ATOM	5	CD	LYS A 19	12.014	20.782	16.801	1.000 99.48
ATOM	6	CE	LYS A 19	10.663	21.012	16.143	1.000100.17
ATOM	7	NZ	LYS A 19	10.303	22.523	16.035	1.000102.13
ATOM	8	C	LYS A 19	14.027	18.457	20.298	1.000 78.84
ATOM	9	O	LYS A 19	15.217	18.783	20.327	1.000 93.11
ATOM	10	N	THR A 20	13.573	17.224	20.310	1.000 69.90
ATOM	11	CA	THR A 20	14.257	15.957	20.169	1.000 59.58
ATOM	12	CB	THR A 20	13.713	15.258	18.900	1.000 45.21
ATOM	13	OG1	THR A 20	14.633	14.309	18.358	1.000 57.38
ATOM	14	CG2	THR A 20	13.489	16.286	17.795	1.000 64.36
ATOM	15	C	THR A 20	15.771	16.101	20.107	1.000 59.34
ATOM	16	O	THR A 20	16.304	16.833	19.272	1.000 83.31
ATOM	17	N	SER A 21	16.471	15.408	20.994	1.000 53.48
ATOM	18	CA	SER A 21	17.903	15.206	20.988	1.000 46.96
ATOM	19	CB	SER A 21	18.353	14.742	19.581	1.000 47.66
ATOM	20	OG	SER A 21	19.770	14.620	19.599	1.000 58.97
ATOM	21	C	SER A 21	18.784	16.398	21.346	1.000 41.17
ATOM	22	O	SER A 21	18.538	17.534	20.963	1.000 47.65
ATOM	23	N	CYS A 22	19.843	16.085	22.080	1.000 41.72
ATOM	24	CA	CYS A 22	20.898	16.977	22.509	1.000 43.91
ATOM	25	CB	CYS A 22	20.566	17.726	23.798	1.000 41.39
ATOM	26	SG	CYS A 22	19.635	19.259	23.584	1.000109.59
ATOM	27	C	CYS A 22	22.183	16.174	22.752	1.000 37.65
ATOM	28	O	CYS A 22	22.505	15.999	23.925	1.000 36.88
ATOM	29	N	PRO A 23	22.822	15.731	21.680	1.000 42.64
ATOM	30	CA	PRO A 23	24.007	14.873	21.736	1.000 46.23
ATOM	31	CB	PRO A 23	24.238	14.461	20.277	1.000 45.02
ATOM	32	CG	PRO A 23	23.012	14.867	19.533	1.000 44.64
ATOM	33	CD	PRO A 23	22.447	16.037	20.280	1.000 45.34
ATOM	34	C	PRO A 23	25.254	15.595	22.253	1.000 49.52
ATOM	35	O	PRO A 23	25.409	16.802	22.079	1.000 43.06
ATOM	36	N	ILE A 24	26.145	14.847	22.897	1.000 50.39
ATOM	37	CA	ILE A 24	27.396	15.350	23.436	1.000 45.58
ATOM	38	CB	ILE A 24	27.299	15.718	24.926	1.000 45.32
ATOM	39	CG1	ILE A 24	26.035	16.480	25.330	1.000 43.71
ATOM	40	CD1	ILE A 24	25.222	15.741	26.376	1.000 43.61
ATOM	41	CG2	ILE A 24	28.545	16.488	25.350	1.000 57.16
ATOM	42	C	ILE A 24	28.517	14.327	23.296	1.000 43.32
ATOM	43	O	ILE A 24	28.322	13.140	23.537	1.000 46.87
ATOM	44	N	LYS A 25	29.713	14.766	22.907	1.000 49.84
ATOM	45	CA	LYS A 25	30.820	13.808	22.815	1.000 50.13
ATOM	46	CB	LYS A 25	31.917	14.375	21.922	1.000 59.09
ATOM	47	CG	LYS A 25	31.444	14.757	20.527	1.000 65.03
ATOM	48	CD	LYS A 25	32.307	14.074	19.471	1.000 71.18
ATOM	49	CE	LYS A 25	31.469	13.255	18.493	1.000 72.46
ATOM	50	NZ	LYS A 25	32.328	12.452	17.576	1.000 73.47
ATOM	51	C	LYS A 25	31.346	13.486	24.204	1.000 52.08

**FIGURE 7**

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Three Dimensional Coordinates of HPTPbeta

ATOM	52	O	LYS	A	25	31.294	14.340	25.095	1.000	53.68
ATOM	53	N	ILE	A	26	31.849	12.274	24.434	1.000	52.14
ATOM	54	CA	ILE	A	26	32.275	11.942	25.793	1.000	63.74
ATOM	55	CB	ILE	A	26	32.817	10.504	25.904	1.000	65.16
ATOM	56	CG1	ILE	A	26	34.316	10.370	25.624	1.000	65.92
ATOM	57	CD1	ILE	A	26	34.847	8.970	25.852	1.000	69.50
ATOM	58	CG2	ILE	A	26	32.016	9.561	25.016	1.000	68.17
ATOM	59	C	ILE	A	26	33.335	12.911	26.307	1.000	70.34
ATOM	60	O	ILE	A	26	33.411	13.146	27.515	1.000	67.42
ATOM	61	N	ASN	A	27	34.141	13.465	25.406	1.000	74.12
ATOM	62	CA	ASN	A	27	35.231	14.350	25.799	1.000	78.44
ATOM	63	CB	ASN	A	27	36.116	14.679	24.588	1.000	86.40
ATOM	64	CG	ASN	A	27	36.877	15.980	24.768	1.000	90.22
ATOM	65	OD1	ASN	A	27	37.854	16.044	25.515	1.000	84.42
ATOM	66	ND2	ASN	A	27	36.432	17.033	24.084	1.000	85.29
ATOM	67	C	ASN	A	27	34.740	15.649	26.423	1.000	75.19
ATOM	68	O	ASN	A	27	35.473	16.309	27.170	1.000	89.55
ATOM	69	N	GLN	A	28	33.507	16.048	26.126	1.000	67.31
ATOM	70	CA	GLN	A	28	33.008	17.350	26.550	1.000	57.01
ATOM	71	CB	GLN	A	28	32.497	18.097	25.313	1.000	54.35
ATOM	72	CG	GLN	A	28	32.204	19.571	25.517	1.000	59.01
ATOM	73	CD	GLN	A	28	32.233	20.351	24.213	1.000	66.07
ATOM	74	OE1	GLN	A	28	31.315	21.121	23.907	1.000	69.78
ATOM	75	NE2	GLN	A	28	33.291	20.154	23.427	1.000	81.02
ATOM	76	C	GLN	A	28	31.894	17.263	27.581	1.000	51.77
ATOM	77	O	GLN	A	28	31.322	18.300	27.939	1.000	55.71
ATOM	78	N	PHE	A	29	31.566	16.061	28.051	1.000	50.17
ATOM	79	CA	PHE	A	29	30.395	15.896	28.910	1.000	48.12
ATOM	80	CB	PHE	A	29	29.984	14.424	29.031	1.000	47.45
ATOM	81	CG	PHE	A	29	28.679	14.209	29.760	1.000	51.71
ATOM	82	CD1	PHE	A	29	27.473	14.198	29.076	1.000	47.01
ATOM	83	CE1	PHE	A	29	26.272	14.005	29.732	1.000	44.54
ATOM	84	CZ	PHE	A	29	26.254	13.826	31.104	1.000	53.70
ATOM	85	CE2	PHE	A	29	27.448	13.826	31.808	1.000	58.73
ATOM	86	CD2	PHE	A	29	28.641	14.016	31.134	1.000	58.31
ATOM	87	C	PHE	A	29	30.633	16.505	30.293	1.000	48.21
ATOM	88	O	PHE	A	29	29.805	17.313	30.723	1.000	51.21
ATOM	89	N	GLU	A	30	31.725	16.100	30.932	1.000	50.97
ATOM	90	CA	GLU	A	30	32.118	16.617	32.243	1.000	40.77
ATOM	91	CB	GLU	A	30	33.518	16.157	32.627	1.000	48.14
ATOM	92	CG	GLU	A	30	33.957	16.520	34.038	1.000	61.37
ATOM	93	CD	GLU	A	30	34.375	15.319	34.871	1.000	63.56
ATOM	94	OE1	GLU	A	30	34.907	14.350	34.287	1.000	58.37
ATOM	95	OE2	GLU	A	30	34.180	15.327	36.108	1.000	52.10
ATOM	96	C	GLU	A	30	32.029	18.136	32.196	1.000	42.41
ATOM	97	O	GLU	A	30	31.394	18.780	33.026	1.000	53.55
ATOM	98	N	GLY	A	31	32.650	18.719	31.167	1.000	41.84
ATOM	99	CA	GLY	A	31	32.510	20.160	31.001	1.000	40.41
ATOM	100	C	GLY	A	31	31.063	20.531	30.754	1.000	48.99
ATOM	101	O	GLY	A	31	30.515	21.443	31.373	1.000	50.79
ATOM	102	N	HIS	A	32	30.407	19.821	29.826	1.000	45.73
ATOM	103	CA	HIS	A	32	29.036	20.224	29.519	1.000	40.05

**FIGURE 8**

ATOM	104	CB	HIS	A	32	28.481	19.370	28.368	1.000	44.33
ATOM	105	CG	HIS	A	32	26.991	19.509	28.268	1.000	46.74
ATOM	106	ND1	HIS	A	32	26.393	20.629	27.736	1.000	49.67
ATOM	107	CE1	HIS	A	32	25.081	20.489	27.779	1.000	47.50
ATOM	108	NE2	HIS	A	32	24.803	19.318	28.328	1.000	46.49
ATOM	109	CD2	HIS	A	32	25.985	18.688	28.642	1.000	48.61
ATOM	110	C	HIS	A	32	28.128	20.126	30.738	1.000	36.48
ATOM	111	O	HIS	A	32	27.213	20.935	30.894	1.000	47.25
ATOM	112	N	PHE	A	33	28.355	19.146	31.611	1.000	37.04
ATOM	113	CA	PHE	A	33	27.466	18.940	32.760	1.000	45.61
ATOM	114	CB	PHE	A	33	27.679	17.531	33.322	1.000	44.57
ATOM	115	CG	PHE	A	33	26.836	17.160	34.514	1.000	38.23
ATOM	116	CD1	PHE	A	33	25.506	17.531	34.598	1.000	30.80
ATOM	117	CE1	PHE	A	33	24.748	17.191	35.702	1.000	28.41
ATOM	118	CZ	PHE	A	33	25.308	16.468	36.737	1.000	30.68
ATOM	119	CE2	PHE	A	33	26.635	16.088	36.669	1.000	27.11
ATOM	120	CD2	PHE	A	33	27.378	16.436	35.564	1.000	28.82
ATOM	121	C	PHE	A	33	27.652	19.998	33.837	1.000	49.01
ATOM	122	O	PHE	A	33	26.723	20.391	34.548	1.000	35.78
ATOM	123	N	MET	A	34	28.873	20.503	33.990	1.000	55.36
ATOM	124	CA	MET	A	34	29.145	21.595	34.918	1.000	48.73
ATOM	125	CB	MET	A	34	30.612	22.002	34.804	1.000	50.55
ATOM	126	CG	MET	A	34	31.589	20.956	35.319	1.000	44.00
ATOM	127	SD	MET	A	34	31.900	21.178	37.082	1.000	69.37
ATOM	128	CE	MET	A	34	32.522	19.553	37.528	1.000	157.91
ATOM	129	C	MET	A	34	28.257	22.797	34.629	1.000	45.46
ATOM	130	O	MET	A	34	27.672	23.409	35.524	1.000	51.08
ATOM	131	N	LYS	A	35	28.169	23.133	33.343	1.000	42.34
ATOM	132	CA	LYS	A	35	27.337	24.249	32.905	1.000	41.76
ATOM	133	CB	LYS	A	35	27.357	24.341	31.387	1.000	48.16
ATOM	134	CG	LYS	A	35	28.744	24.409	30.774	1.000	54.19
ATOM	135	CD	LYS	A	35	28.745	25.343	29.558	1.000	56.45
ATOM	136	CE	LYS	A	35	27.969	26.621	29.849	1.000	59.03
ATOM	137	NZ	LYS	A	35	26.532	26.499	29.466	1.000	63.17
ATOM	138	C	LYS	A	35	25.902	24.093	33.401	1.000	52.49
ATOM	139	O	LYS	A	35	25.341	25.000	34.019	1.000	58.86
ATOM	140	N	LEU	A	36	25.323	22.927	33.122	1.000	45.81
ATOM	141	CA	LEU	A	36	23.967	22.608	33.538	1.000	38.58
ATOM	142	CB	LEU	A	36	23.651	21.126	33.313	1.000	45.57
ATOM	143	CG	LEU	A	36	23.288	20.682	31.901	1.000	50.85
ATOM	144	CD1	LEU	A	36	24.233	21.277	30.870	1.000	57.32
ATOM	145	CD2	LEU	A	36	23.292	19.159	31.799	1.000	59.71
ATOM	146	C	LEU	A	36	23.753	22.921	35.011	1.000	35.30
ATOM	147	O	LEU	A	36	22.857	23.679	35.382	1.000	53.13
ATOM	148	N	GLN	A	37	24.585	22.311	35.857	1.000	36.39
ATOM	149	CA	GLN	A	37	24.427	22.527	37.292	1.000	46.18
ATOM	150	CB	GLN	A	37	25.238	21.504	38.085	1.000	56.71
ATOM	151	CG	GLN	A	37	26.311	20.782	37.289	1.000	59.65
ATOM	152	CD	GLN	A	37	26.681	19.440	37.891	1.000	59.86
ATOM	153	OE1	GLN	A	37	27.412	18.655	37.285	1.000	76.78
ATOM	154	NE2	GLN	A	37	26.190	19.165	39.092	1.000	59.17
ATOM	155	C	GLN	A	37	24.844	23.938	37.696	1.000	53.32

**FIGURE 9**

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Three Dimensional Coordinates of HPTPbeta

ATOM	156	O	GLN	A	37	24.407	24.448	38.730	1.000	47.35
ATOM	157	N	ALA	A	38	25.684	24.560	36.876	1.000	58.65
ATOM	158	CA	ALA	A	38	26.173	25.905	37.151	1.000	68.20
ATOM	159	CB	ALA	A	38	27.038	26.387	35.992	1.000	88.29
ATOM	160	C	ALA	A	38	25.055	26.906	37.416	1.000	68.67
ATOM	161	O	ALA	A	38	24.003	26.933	36.777	1.000	57.74
ATOM	162	N	ASP	A	39	25.301	27.778	38.394	1.000	72.20
ATOM	163	CA	ASP	A	39	24.314	28.796	38.736	1.000	74.27
ATOM	164	CB	ASP	A	39	23.909	29.628	37.527	1.000	85.74
ATOM	165	CG	ASP	A	39	25.044	30.402	36.878	1.000	97.59
ATOM	166	OD1	ASP	A	39	24.958	30.635	35.641	1.000	113.10
ATOM	167	OD2	ASP	A	39	26.039	30.750	37.574	1.000	105.88
ATOM	168	C	ASP	A	39	23.087	28.123	39.343	1.000	66.70
ATOM	169	O	ASP	A	39	21.999	28.689	39.281	1.000	73.27
ATOM	170	N	SER	A	40	23.298	26.947	39.907	1.000	64.44
ATOM	171	CA	SER	A	40	22.275	26.159	40.578	1.000	64.68
ATOM	172	CB	SER	A	40	21.396	27.050	41.465	1.000	55.65
ATOM	173	OG	SER	A	40	22.105	28.171	41.962	1.000	78.01
ATOM	174	C	SER	A	40	21.376	25.400	39.603	1.000	62.90
ATOM	175	O	SER	A	40	20.184	25.716	39.507	1.000	51.42
ATOM	176	N	ASN	A	41	21.912	24.422	38.883	1.000	60.85
ATOM	177	CA	ASN	A	41	21.172	23.654	37.894	1.000	61.49
ATOM	178	CB	ASN	A	41	20.165	22.694	38.532	1.000	61.83
ATOM	179	CG	ASN	A	41	20.762	21.620	39.402	1.000	69.08
ATOM	180	OD1	ASN	A	41	21.917	21.225	39.250	1.000	80.40
ATOM	181	ND2	ASN	A	41	19.957	21.130	40.339	1.000	78.07
ATOM	182	C	ASN	A	41	20.361	24.555	36.966	1.000	67.15
ATOM	183	O	ASN	A	41	19.289	24.130	36.528	1.000	80.59
ATOM	184	N	TYR	A	42	20.825	25.767	36.685	1.000	63.68
ATOM	185	CA	TYR	A	42	19.955	26.712	35.995	1.000	58.60
ATOM	186	CB	TYR	A	42	20.581	28.109	35.929	1.000	62.78
ATOM	187	CG	TYR	A	42	19.713	29.057	35.134	1.000	60.11
ATOM	188	CD1	TYR	A	42	18.414	29.333	35.553	1.000	62.46
ATOM	189	CE1	TYR	A	42	17.603	30.195	34.844	1.000	61.51
ATOM	190	CZ	TYR	A	42	18.099	30.785	33.705	1.000	62.86
ATOM	191	OH	TYR	A	42	17.300	31.648	32.990	1.000	84.83
ATOM	192	CE2	TYR	A	42	19.378	30.523	33.263	1.000	60.46
ATOM	193	CD2	TYR	A	42	20.186	29.658	33.976	1.000	59.75
ATOM	194	C	TYR	A	42	19.631	26.234	34.584	1.000	44.43
ATOM	195	O	TYR	A	42	18.468	26.109	34.216	1.000	44.77
ATOM	196	N	LEU	A	43	20.701	25.982	33.847	1.000	40.94
ATOM	197	CA	LEU	A	43	20.603	25.447	32.499	1.000	53.15
ATOM	198	CB	LEU	A	43	21.973	25.359	31.837	1.000	60.19
ATOM	199	CG	LEU	A	43	22.899	26.570	31.920	1.000	67.43
ATOM	200	CD1	LEU	A	43	23.839	26.600	30.724	1.000	71.66
ATOM	201	CD2	LEU	A	43	22.126	27.871	32.003	1.000	79.71
ATOM	202	C	LEU	A	43	19.934	24.068	32.542	1.000	55.94
ATOM	203	O	LEU	A	43	18.895	23.893	31.904	1.000	56.22
ATOM	204	N	LEU	A	44	20.523	23.138	33.277	1.000	55.33
ATOM	205	CA	LEU	A	44	20.043	21.785	33.466	1.000	57.43
ATOM	206	CB	LEU	A	44	20.668	21.151	34.719	1.000	58.28
ATOM	207	CG	LEU	A	44	20.333	19.672	34.935	1.000	58.45

**FIGURE 10**

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Three Dimensional Coordinates of HPTPbeta

ATOM	208	CD1	LEU	A	44	21.583	18.890	35.306	1.000	66.34
ATOM	209	CD2	LEU	A	44	19.259	19.509	35.999	1.000	64.52
ATOM	210	C	LEU	A	44	18.522	21.721	33.618	1.000	58.45
ATOM	211	O	LEU	A	44	17.875	20.876	33.005	1.000	62.57
ATOM	212	N	SER	A	45	18.022	22.636	34.428	1.000	58.88
ATOM	213	CA	SER	A	45	16.634	22.760	34.841	1.000	54.60
ATOM	214	CB	SER	A	45	16.564	23.645	36.093	1.000	50.24
ATOM	215	OG	SER	A	45	15.228	23.927	36.463	1.000	55.87
ATOM	216	C	SER	A	45	15.745	23.315	33.743	1.000	57.32
ATOM	217	O	SER	A	45	14.548	23.027	33.655	1.000	57.44
ATOM	218	N	LYS	A	46	16.303	24.131	32.849	1.000	62.62
ATOM	219	CA	LYS	A	46	15.432	24.625	31.776	1.000	66.95
ATOM	220	CB	LYS	A	46	15.937	25.962	31.242	1.000	74.26
ATOM	221	CG	LYS	A	46	16.359	26.942	32.327	1.000	76.81
ATOM	222	CD	LYS	A	46	15.163	27.555	33.036	1.000	76.98
ATOM	223	CE	LYS	A	46	13.919	27.533	32.159	1.000	77.01
ATOM	224	NZ	LYS	A	46	13.910	28.669	31.183	1.000	76.61
ATOM	225	C	LYS	A	46	15.324	23.574	30.673	1.000	58.56
ATOM	226	O	LYS	A	46	14.244	23.378	30.116	1.000	75.22
ATOM	227	N	GLU	A	47	16.436	22.917	30.384	1.000	47.55
ATOM	228	CA	GLU	A	47	16.525	21.820	29.431	1.000	50.54
ATOM	229	CB	GLU	A	47	17.934	21.229	29.416	1.000	51.00
ATOM	230	CG	GLU	A	47	18.207	20.220	28.322	1.000	54.12
ATOM	231	CD	GLU	A	47	19.602	19.627	28.395	1.000	52.91
ATOM	232	OE1	GLU	A	47	20.500	20.053	27.631	1.000	41.94
ATOM	233	OE2	GLU	A	47	19.799	18.714	29.229	1.000	49.31
ATOM	234	C	GLU	A	47	15.509	20.738	29.790	1.000	49.73
ATOM	235	O	GLU	A	47	14.803	20.208	28.939	1.000	39.85
ATOM	236	N	TYR	A	48	15.448	20.426	31.086	1.000	44.02
ATOM	237	CA	TYR	A	48	14.563	19.352	31.531	1.000	41.02
ATOM	238	CB	TYR	A	48	14.890	18.965	32.971	1.000	38.64
ATOM	239	CG	TYR	A	48	13.922	17.993	33.599	1.000	36.61
ATOM	240	CD1	TYR	A	48	13.950	16.650	33.247	1.000	34.64
ATOM	241	CE1	TYR	A	48	13.073	15.745	33.809	1.000	36.45
ATOM	242	CZ	TYR	A	48	12.153	16.179	34.738	1.000	35.24
ATOM	243	OH	TYR	A	48	11.285	15.269	35.288	1.000	36.83
ATOM	244	CE2	TYR	A	48	12.098	17.506	35.108	1.000	34.92
ATOM	245	CD2	TYR	A	48	12.983	18.405	34.535	1.000	38.27
ATOM	246	C	TYR	A	48	13.112	19.774	31.382	1.000	42.44
ATOM	247	O	TYR	A	48	12.227	18.943	31.170	1.000	37.58
ATOM	248	N	GLU	A	49	12.839	21.077	31.488	1.000	34.93
ATOM	249	CA	GLU	A	49	11.443	21.484	31.313	1.000	36.05
ATOM	250	CB	GLU	A	49	11.210	22.881	31.875	1.000	45.26
ATOM	251	CG	GLU	A	49	11.239	22.953	33.390	1.000	56.89
ATOM	252	CD	GLU	A	49	10.271	21.998	34.053	1.000	65.15
ATOM	253	OE1	GLU	A	49	10.722	21.031	34.704	1.000	61.85
ATOM	254	OE2	GLU	A	49	9.047	22.220	33.926	1.000	85.66
ATOM	255	C	GLU	A	49	11.065	21.406	29.835	1.000	40.11
ATOM	256	O	GLU	A	49	9.884	21.429	29.488	1.000	45.25
ATOM	257	N	GLU	A	50	12.071	21.304	28.972	1.000	34.88
ATOM	258	CA	GLU	A	50	11.897	21.219	27.536	1.000	34.15
ATOM	259	CB	GLU	A	50	13.225	21.224	26.784	1.000	47.42

**FIGURE 11**

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ATOM	260	CG	GLU	A	50	14.193	22.357	27.039	1.000	58.31
ATOM	261	CD	GLU	A	50	15.395	22.299	26.111	1.000	72.71
ATOM	262	OE1	GLU	A	50	15.705	21.201	25.592	1.000	84.88
ATOM	263	OE2	GLU	A	50	16.034	23.355	25.892	1.000	89.36
ATOM	264	C	GLU	A	50	11.172	19.927	27.145	1.000	41.10
ATOM	265	O	GLU	A	50	10.637	19.814	26.042	1.000	48.55
ATOM	266	N	LEU	A	51	11.214	18.984	28.077	1.000	37.69
ATOM	267	CA	LEU	A	51	10.671	17.650	27.907	1.000	34.93
ATOM	268	CB	LEU	A	51	11.632	16.647	28.554	1.000	32.69
ATOM	269	CG	LEU	A	51	12.990	16.479	27.869	1.000	27.26
ATOM	270	CD1	LEU	A	51	14.003	15.896	28.837	1.000	30.09
ATOM	271	CD2	LEU	A	51	12.860	15.598	26.636	1.000	25.80
ATOM	272	C	LEU	A	51	9.286	17.512	28.523	1.000	39.93
ATOM	273	O	LEU	A	51	8.633	16.483	28.348	1.000	32.60
ATOM	274	N	LYS	A	52	8.856	18.542	29.242	1.000	35.85
ATOM	275	CA	LYS	A	52	7.628	18.496	30.017	1.000	43.68
ATOM	276	CB	LYS	A	52	7.282	19.881	30.584	1.000	49.99
ATOM	277	CG	LYS	A	52	5.828	20.014	31.009	1.000	50.93
ATOM	278	CD	LYS	A	52	5.552	21.383	31.613	1.000	54.40
ATOM	279	CE	LYS	A	52	4.187	21.908	31.183	1.000	52.01
ATOM	280	NZ	LYS	A	52	4.061	23.372	31.421	1.000	52.88
ATOM	281	C	LYS	A	52	6.440	17.978	29.211	1.000	41.72
ATOM	282	O	LYS	A	52	5.749	17.087	29.712	1.000	40.74
ATOM	283	N	ASP	A	53	6.241	18.521	28.018	1.000	35.76
ATOM	284	CA	ASP	A	53	5.074	18.259	27.196	1.000	33.00
ATOM	285	CB	ASP	A	53	4.640	19.524	26.440	1.000	35.62
ATOM	286	CG	ASP	A	53	4.134	20.637	27.333	1.000	39.83
ATOM	287	OD1	ASP	A	53	4.039	21.790	26.856	1.000	41.69
ATOM	288	OD2	ASP	A	53	3.834	20.393	28.518	1.000	48.93
ATOM	289	C	ASP	A	53	5.283	17.142	26.177	1.000	29.06
ATOM	290	O	ASP	A	53	4.349	16.827	25.426	1.000	22.95
ATOM	291	N	VAL	A	54	6.459	16.533	26.120	1.000	26.91
ATOM	292	CA	VAL	A	54	6.661	15.454	25.148	1.000	23.54
ATOM	293	CB	VAL	A	54	8.059	14.818	25.272	1.000	30.36
ATOM	294	CG1	VAL	A	54	8.120	13.547	24.435	1.000	21.06
ATOM	295	CG2	VAL	A	54	9.154	15.791	24.855	1.000	31.51
ATOM	296	C	VAL	A	54	5.617	14.348	25.309	1.000	29.36
ATOM	297	O	VAL	A	54	5.350	13.848	26.409	1.000	28.89
ATOM	298	N	GLY	A	55	5.015	13.988	24.188	1.000	23.19
ATOM	299	CA	GLY	A	55	4.021	12.953	24.067	1.000	23.74
ATOM	300	C	GLY	A	55	2.731	13.216	24.816	1.000	35.64
ATOM	301	O	GLY	A	55	1.917	12.289	24.916	1.000	34.29
ATOM	302	N	ARG	A	56	2.535	14.432	25.331	1.000	26.60
ATOM	303	CA	ARG	A	56	1.351	14.736	26.122	1.000	26.13
ATOM	304	CB	ARG	A	56	1.587	15.960	27.020	1.000	28.53
ATOM	305	CG	ARG	A	56	2.477	15.672	28.222	1.000	31.24
ATOM	306	CD	ARG	A	56	1.970	14.486	29.030	1.000	31.18
ATOM	307	NE	ARG	A	56	2.866	14.160	30.136	1.000	39.70
ATOM	308	CZ	ARG	A	56	2.724	14.463	31.417	1.000	41.60
ATOM	309	NH1	ARG	A	56	1.683	15.139	31.879	1.000	33.99
ATOM	310	NH2	ARG	A	56	3.650	14.082	32.292	1.000	42.42
ATOM	311	C	ARG	A	56	0.123	14.966	25.250	1.000	24.97

**FIGURE 12**



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Three Dimensional Coordinates of HPTPbeta

ATOM	312	O	ARG	A	56	-0.957	15.301	25.741	1.000	29.55
ATOM	313	N	ASN	A	57	0.258	14.781	23.944	1.000	24.28
ATOM	314	CA	ASN	A	57	-0.895	14.909	23.064	1.000	33.49
ATOM	315	CB	ASN	A	57	-0.474	15.189	21.611	1.000	33.93
ATOM	316	CG	ASN	A	57	0.605	14.218	21.162	1.000	35.19
ATOM	317	OD1	ASN	A	57	1.492	13.907	21.957	1.000	42.76
ATOM	318	ND2	ASN	A	57	0.547	13.751	19.918	1.000	35.98
ATOM	319	C	ASN	A	57	-1.720	13.635	23.056	1.000	35.77
ATOM	320	O	ASN	A	57	-2.865	13.607	22.617	1.000	32.52
ATOM	321	N	GLN	A	58	-1.139	12.529	23.521	1.000	35.76
ATOM	322	CA	GLN	A	58	-1.864	11.271	23.295	1.000	30.59
ATOM	323	CB	GLN	A	58	-0.851	10.129	23.178	1.000	29.64
ATOM	324	CG	GLN	A	58	0.201	10.442	22.108	1.000	28.67
ATOM	325	CD	GLN	A	58	1.406	9.527	22.230	1.000	31.92
ATOM	326	OE1	GLN	A	58	2.330	9.754	23.023	1.000	40.11
ATOM	327	NE2	GLN	A	58	1.386	8.474	21.427	1.000	22.80
ATOM	328	C	GLN	A	58	-2.899	11.017	24.373	1.000	26.57
ATOM	329	O	GLN	A	58	-2.814	11.505	25.494	1.000	28.16
ATOM	330	N	SER	A	59	-3.895	10.232	23.996	1.000	21.64
ATOM	331	CA	SER	A	59	-5.004	9.889	24.858	1.000	21.49
ATOM	332	CB	SER	A	59	-6.312	9.936	24.060	1.000	23.13
ATOM	333	OG	SER	A	59	-6.423	8.760	23.266	1.000	50.75
ATOM	334	C	SER	A	59	-4.832	8.495	25.465	1.000	27.34
ATOM	335	O	SER	A	59	-4.113	7.652	24.915	1.000	28.20
ATOM	336	N	CYS	A	60	-5.510	8.289	26.585	1.000	21.68
ATOM	337	CA	CYS	A	60	-5.566	7.030	27.307	1.000	19.90
ATOM	338	CB	CYS	A	60	-4.841	7.171	28.645	1.000	31.73
ATOM	339	SG	CYS	A	60	-3.240	8.002	28.554	1.000	43.81
ATOM	340	C	CYS	A	60	-7.008	6.595	27.556	1.000	22.77
ATOM	341	O	CYS	A	60	-7.341	6.204	28.678	1.000	20.42
ATOM	342	N	ASP	A	61	-7.852	6.663	26.540	1.000	21.77
ATOM	343	CA	ASP	A	61	-9.266	6.323	26.610	1.000	30.03
ATOM	344	CB	ASP	A	61	-9.915	6.527	25.236	1.000	35.37
ATOM	345	CG	ASP	A	61	-9.894	7.936	24.695	1.000	32.99
ATOM	346	OD1	ASP	A	61	-9.618	8.909	25.426	1.000	42.37
ATOM	347	OD2	ASP	A	61	-10.171	8.083	23.481	1.000	42.70
ATOM	348	C	ASP	A	61	-9.529	4.890	27.073	1.000	31.27
ATOM	349	O	ASP	A	61	-10.375	4.669	27.946	1.000	26.07
ATOM	350	N	ILE	A	62	-8.840	3.896	26.517	1.000	33.57
ATOM	351	CA	ILE	A	62	-9.017	2.497	26.889	1.000	26.85
ATOM	352	CB	ILE	A	62	-8.021	1.572	26.166	1.000	27.84
ATOM	353	CG1	ILE	A	62	-7.987	1.728	24.650	1.000	25.02
ATOM	354	CD1	ILE	A	62	-9.326	1.502	23.982	1.000	31.68
ATOM	355	CG2	ILE	A	62	-8.284	0.124	26.574	1.000	22.54
ATOM	356	C	ILE	A	62	-8.822	2.256	28.381	1.000	32.08
ATOM	357	O	ILE	A	62	-9.608	1.599	29.071	1.000	30.72
ATOM	358	N	ALA	A	63	-7.724	2.812	28.896	1.000	25.21
ATOM	359	CA	ALA	A	63	-7.448	2.650	30.321	1.000	24.51
ATOM	360	CB	ALA	A	63	-6.138	3.336	30.687	1.000	24.25
ATOM	361	C	ALA	A	63	-8.585	3.208	31.168	1.000	32.19
ATOM	362	O	ALA	A	63	-8.795	2.776	32.302	1.000	36.44
ATOM	363	N	LEU	A	64	-9.309	4.183	30.622	1.000	29.54

**FIGURE 13**

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Three Dimensional Coordinates of HPTPbeta

ATOM	364	CA	LEU	A	64	-10.325	4.890	31.389	1.000	31.43
ATOM	365	CB	LEU	A	64	-10.486	6.331	30.884	1.000	27.77
ATOM	366	CG	LEU	A	64	-9.333	7.259	31.283	1.000	27.38
ATOM	367	CD1	LEU	A	64	-9.308	8.494	30.399	1.000	15.84
ATOM	368	CD2	LEU	A	64	-9.456	7.608	32.760	1.000	25.15
ATOM	369	C	LEU	A	64	-11.663	4.180	31.315	1.000	27.53
ATOM	370	O	LEU	A	64	-12.640	4.639	31.902	1.000	25.88
ATOM	371	N	LEU	A	65	-11.712	3.063	30.594	1.000	24.50
ATOM	372	CA	LEU	A	65	-13.005	2.371	30.555	1.000	29.09
ATOM	373	CB	LEU	A	65	-12.934	1.238	29.534	1.000	26.20
ATOM	374	CG	LEU	A	65	-12.633	1.726	28.112	1.000	32.04
ATOM	375	CD1	LEU	A	65	-12.556	0.568	27.137	1.000	26.24
ATOM	376	CD2	LEU	A	65	-13.692	2.740	27.692	1.000	42.91
ATOM	377	C	LEU	A	65	-13.380	1.876	31.948	1.000	36.19
ATOM	378	O	LEU	A	65	-12.506	1.424	32.690	1.000	34.08
ATOM	379	N	PRO	A	66	-14.658	1.985	32.302	1.000	38.51
ATOM	380	CA	PRO	A	66	-15.156	1.575	33.618	1.000	45.55
ATOM	381	CB	PRO	A	66	-16.682	1.595	33.438	1.000	41.37
ATOM	382	CG	PRO	A	66	-16.895	2.654	32.411	1.000	38.85
ATOM	383	CD	PRO	A	66	-15.733	2.545	31.463	1.000	39.79
ATOM	384	C	PRO	A	66	-14.718	0.173	34.026	1.000	45.91
ATOM	385	O	PRO	A	66	-14.329	-0.049	35.171	1.000	40.19
ATOM	386	N	GLU	A	67	-14.780	-0.764	33.090	1.000	39.45
ATOM	387	CA	GLU	A	67	-14.412	-2.143	33.370	1.000	36.99
ATOM	388	CB	GLU	A	67	-14.780	-3.022	32.170	1.000	40.26
ATOM	389	CG	GLU	A	67	-13.872	-2.765	30.975	1.000	51.03
ATOM	390	CD	GLU	A	67	-14.478	-3.329	29.706	1.000	62.19
ATOM	391	OE1	GLU	A	67	-15.190	-4.351	29.789	1.000	95.02
ATOM	392	OE2	GLU	A	67	-14.229	-2.750	28.629	1.000	48.12
ATOM	393	C	GLU	A	67	-12.929	-2.311	33.685	1.000	41.35
ATOM	394	O	GLU	A	67	-12.555	-3.306	34.309	1.000	49.39
ATOM	395	N	ASN	A	68	-12.105	-1.357	33.266	1.000	44.36
ATOM	396	CA	ASN	A	68	-10.668	-1.381	33.488	1.000	35.22
ATOM	397	CB	ASN	A	68	-9.938	-0.853	32.244	1.000	30.80
ATOM	398	CG	ASN	A	68	-10.071	-1.799	31.070	1.000	26.82
ATOM	399	OD1	ASN	A	68	-10.219	-3.004	31.263	1.000	30.94
ATOM	400	ND2	ASN	A	68	-10.021	-1.271	29.849	1.000	25.55
ATOM	401	C	ASN	A	68	-10.240	-0.570	34.706	1.000	35.99
ATOM	402	O	ASN	A	68	-9.074	-0.612	35.110	1.000	34.21
ATOM	403	N	ARG	A	69	-11.151	0.170	35.325	1.000	40.53
ATOM	404	CA	ARG	A	69	-10.796	1.005	36.475	1.000	35.31
ATOM	405	CB	ARG	A	69	-12.060	1.688	36.993	1.000	47.65
ATOM	406	CG	ARG	A	69	-11.878	3.089	37.547	1.000	59.36
ATOM	407	CD	ARG	A	69	-12.710	3.262	38.819	1.000	65.36
ATOM	408	NE	ARG	A	69	-12.615	2.076	39.666	1.000	69.47
ATOM	409	CZ	ARG	A	69	-13.019	1.980	40.923	1.000	75.71
ATOM	410	NH1	ARG	A	69	-13.586	3.018	41.542	1.000	91.00
ATOM	411	NH2	ARG	A	69	-12.880	0.832	41.575	1.000	74.09
ATOM	412	C	ARG	A	69	-10.114	0.205	37.572	1.000	33.70
ATOM	413	O	ARG	A	69	-9.102	0.634	38.135	1.000	41.23
ATOM	414	N	GLY	A	70	-10.641	-0.976	37.890	1.000	34.09
ATOM	415	CA	GLY	A	70	-10.030	-1.844	38.877	1.000	29.32

**FIGURE 14**

ATOM	416	C	GLY	A	70	-8.645	-2.304	38.476	1.000	33.87
ATOM	417	O	GLY	A	70	-7.861	-2.788	39.293	1.000	29.15
ATOM	418	N	LYS	A	71	-8.269	-2.166	37.200	1.000	28.62
ATOM	419	CA	LYS	A	71	-6.975	-2.730	36.805	1.000	28.56
ATOM	420	CB	LYS	A	71	-7.145	-3.327	35.403	1.000	26.54
ATOM	421	CG	LYS	A	71	-8.206	-4.431	35.340	1.000	22.84
ATOM	422	CD	LYS	A	71	-8.540	-4.715	33.880	1.000	25.18
ATOM	423	CE	LYS	A	71	-9.766	-5.603	33.744	1.000	26.92
ATOM	424	NZ	LYS	A	71	-10.179	-5.703	32.310	1.000	25.36
ATOM	425	C	LYS	A	71	-5.825	-1.737	36.871	1.000	24.24
ATOM	426	O	LYS	A	71	-4.670	-2.046	36.565	1.000	23.92
ATOM	427	N	ASN	A	72	-6.078	-0.506	37.292	1.000	21.36
ATOM	428	CA	ASN	A	72	-5.019	0.485	37.438	1.000	22.33
ATOM	429	CB	ASN	A	72	-5.431	1.802	36.760	1.000	17.72
ATOM	430	CG	ASN	A	72	-5.773	1.557	35.299	1.000	20.67
ATOM	431	OD1	ASN	A	72	-4.968	1.023	34.534	1.000	19.13
ATOM	432	ND2	ASN	A	72	-6.981	1.935	34.901	1.000	22.56
ATOM	433	C	ASN	A	72	-4.691	0.708	38.904	1.000	22.55
ATOM	434	O	ASN	A	72	-5.548	0.952	39.747	1.000	27.49
ATOM	435	N	ARG	A	73	-3.410	0.626	39.238	1.000	24.79
ATOM	436	CA	ARG	A	73	-2.989	0.857	40.612	1.000	22.71
ATOM	437	CB	ARG	A	73	-1.523	0.471	40.761	1.000	19.16
ATOM	438	CG	ARG	A	73	-1.003	0.559	42.185	1.000	20.59
ATOM	439	CD	ARG	A	73	0.456	0.114	42.254	1.000	16.95
ATOM	440	NE	ARG	A	73	0.546	-1.347	42.281	1.000	17.30
ATOM	441	CZ	ARG	A	73	0.282	-2.041	43.387	1.000	28.69
ATOM	442	NH1	ARG	A	73	-0.073	-1.406	44.500	1.000	20.46
ATOM	443	NH2	ARG	A	73	0.372	-3.371	43.383	1.000	26.38
ATOM	444	C	ARG	A	73	-3.227	2.314	40.990	1.000	29.57
ATOM	445	O	ARG	A	73	-3.731	2.609	42.070	1.000	23.74
ATOM	446	N	TYR	A	74	-2.864	3.229	40.095	1.000	22.89
ATOM	447	CA	TYR	A	74	-3.188	4.640	40.292	1.000	19.10
ATOM	448	CB	TYR	A	74	-1.941	5.487	40.496	1.000	29.90
ATOM	449	CG	TYR	A	74	-0.889	4.936	41.434	1.000	28.85
ATOM	450	CD1	TYR	A	74	-0.948	5.169	42.802	1.000	29.68
ATOM	451	CE1	TYR	A	74	0.019	4.668	43.655	1.000	32.91
ATOM	452	CZ	TYR	A	74	1.064	3.920	43.146	1.000	32.73
ATOM	453	OH	TYR	A	74	2.029	3.415	43.989	1.000	28.80
ATOM	454	CE2	TYR	A	74	1.156	3.672	41.791	1.000	20.37
ATOM	455	CD2	TYR	A	74	0.182	4.186	40.957	1.000	22.57
ATOM	456	C	TYR	A	74	-4.007	5.110	39.095	1.000	33.71
ATOM	457	O	TYR	A	74	-3.753	4.819	37.920	1.000	23.30
ATOM	458	N	ASN	A	75	-5.062	5.861	39.410	1.000	33.95
ATOM	459	CA	ASN	A	75	-6.019	6.213	38.358	1.000	32.58
ATOM	460	CB	ASN	A	75	-7.389	6.458	39.014	1.000	35.23
ATOM	461	CG	ASN	A	75	-7.716	5.300	39.947	1.000	42.60
ATOM	462	OD1	ASN	A	75	-7.925	5.491	41.144	1.000	68.26
ATOM	463	ND2	ASN	A	75	-7.745	4.087	39.403	1.000	39.56
ATOM	464	C	ASN	A	75	-5.533	7.385	37.534	1.000	30.63
ATOM	465	O	ASN	A	75	-6.101	7.736	36.497	1.000	26.15
ATOM	466	N	ASN	A	76	-4.440	8.015	37.962	1.000	28.76
ATOM	467	CA	ASN	A	76	-3.897	9.102	37.150	1.000	28.13

**FIGURE 15**

ATOM	468	CB	ASN	A	76	-3.719	10.374	37.979	1.000	27.74
ATOM	469	CG	ASN	A	76	-2.648	10.200	39.041	1.000	28.93
ATOM	470	OD1	ASN	A	76	-2.497	9.101	39.573	1.000	29.34
ATOM	471	ND2	ASN	A	76	-1.937	11.284	39.321	1.000	29.63
ATOM	472	C	ASN	A	76	-2.570	8.694	36.526	1.000	29.10
ATOM	473	O	ASN	A	76	-1.851	9.557	36.015	1.000	33.33
ATOM	474	N	ILE	A	77	-2.273	7.392	36.558	1.000	24.17
ATOM	475	CA	ILE	A	77	-1.095	6.908	35.830	1.000	23.94
ATOM	476	CB	ILE	A	77	0.024	6.496	36.797	1.000	28.53
ATOM	477	CG1	ILE	A	77	0.575	7.663	37.624	1.000	24.03
ATOM	478	CD1	ILE	A	77	1.451	7.212	38.776	1.000	35.26
ATOM	479	CG2	ILE	A	77	1.137	5.798	36.041	1.000	21.08
ATOM	480	C	ILE	A	77	-1.457	5.760	34.900	1.000	22.75
ATOM	481	O	ILE	A	77	-1.618	4.597	35.282	1.000	17.56
ATOM	482	N	LEU	A	78	-1.605	6.108	33.621	1.000	16.56
ATOM	483	CA	LEU	A	78	-2.172	5.202	32.641	1.000	12.89
ATOM	484	CB	LEU	A	78	-3.616	5.616	32.310	1.000	17.17
ATOM	485	CG	LEU	A	78	-4.457	6.017	33.522	1.000	22.43
ATOM	486	CD1	LEU	A	78	-5.794	6.590	33.075	1.000	27.35
ATOM	487	CD2	LEU	A	78	-4.637	4.813	34.431	1.000	17.32
ATOM	488	C	LEU	A	78	-1.415	5.213	31.326	1.000	17.93
ATOM	489	O	LEU	A	78	-0.846	6.221	30.922	1.000	18.95
ATOM	490	N	PRO	A	79	-1.459	4.086	30.640	1.000	21.12
ATOM	491	CA	PRO	A	79	-0.773	3.971	29.355	1.000	18.86
ATOM	492	CB	PRO	A	79	-0.858	2.470	29.068	1.000	18.12
ATOM	493	CG	PRO	A	79	-2.148	2.076	29.721	1.000	21.28
ATOM	494	CD	PRO	A	79	-2.184	2.858	31.011	1.000	17.43
ATOM	495	C	PRO	A	79	-1.532	4.694	28.253	1.000	19.81
ATOM	496	O	PRO	A	79	-2.761	4.633	28.249	1.000	19.07
ATOM	497	N	TYR	A	80	-0.784	5.317	27.355	1.000	16.14
ATOM	498	CA	TYR	A	80	-1.338	5.843	26.117	1.000	15.09
ATOM	499	CB	TYR	A	80	-0.216	6.508	25.313	1.000	20.99
ATOM	500	CG	TYR	A	80	0.350	7.734	25.993	1.000	20.29
ATOM	501	CD1	TYR	A	80	-0.494	8.670	26.577	1.000	20.64
ATOM	502	CE1	TYR	A	80	0.019	9.796	27.206	1.000	20.96
ATOM	503	CZ	TYR	A	80	1.385	9.986	27.243	1.000	21.66
ATOM	504	OH	TYR	A	80	1.903	11.103	27.859	1.000	23.51
ATOM	505	CE2	TYR	A	80	2.239	9.071	26.671	1.000	18.25
ATOM	506	CD2	TYR	A	80	1.722	7.946	26.047	1.000	21.75
ATOM	507	C	TYR	A	80	-1.988	4.755	25.277	1.000	23.46
ATOM	508	O	TYR	A	80	-1.471	3.635	25.187	1.000	23.99
ATOM	509	N	ASP	A	81	-3.125	5.040	24.637	1.000	22.91
ATOM	510	CA	ASP	A	81	-3.735	4.027	23.780	1.000	19.34
ATOM	511	CB	ASP	A	81	-5.033	4.518	23.120	1.000	24.22
ATOM	512	CG	ASP	A	81	-6.080	4.908	24.143	1.000	34.31
ATOM	513	OD1	ASP	A	81	-6.296	4.128	25.094	1.000	27.78
ATOM	514	OD2	ASP	A	81	-6.688	5.992	24.010	1.000	35.52
ATOM	515	C	ASP	A	81	-2.769	3.610	22.678	1.000	18.44
ATOM	516	O	ASP	A	81	-2.722	2.439	22.278	1.000	24.18
ATOM	517	N	ALA	A	82	-2.002	4.573	22.161	1.000	16.71
ATOM	518	CA	ALA	A	82	-1.164	4.229	21.008	1.000	21.74
ATOM	519	CB	ALA	A	82	-0.654	5.520	20.373	1.000	25.83

**FIGURE 16**

ATOM	520	C	ALA	A	82	-0.010	3.300	21.338	1.000	26.28
ATOM	521	O	ALA	A	82	0.556	2.660	20.439	1.000	24.04
ATOM	522	N	THR	A	83	0.447	3.140	22.584	1.000	19.03
ATOM	523	CA	THR	A	83	1.625	2.280	22.757	1.000	14.68
ATOM	524	CB	THR	A	83	2.853	3.095	23.225	1.000	22.79
ATOM	525	OG1	THR	A	83	2.464	3.852	24.374	1.000	18.61
ATOM	526	CG2	THR	A	83	3.308	4.096	22.168	1.000	17.97
ATOM	527	C	THR	A	83	1.412	1.199	23.799	1.000	22.48
ATOM	528	O	THR	A	83	2.380	0.580	24.254	1.000	20.29
ATOM	529	N	ARG	A	84	0.144	1.005	24.159	1.000	18.73
ATOM	530	CA	ARG	A	84	-0.176	0.106	25.257	1.000	22.92
ATOM	531	CB	ARG	A	84	-1.621	0.347	25.683	1.000	27.10
ATOM	532	CG	ARG	A	84	-2.650	-0.247	24.721	1.000	21.68
ATOM	533	CD	ARG	A	84	-4.047	0.092	25.236	1.000	25.76
ATOM	534	NE	ARG	A	84	-5.071	-0.515	24.395	1.000	31.14
ATOM	535	CZ	ARG	A	84	-5.698	-1.652	24.648	1.000	28.06
ATOM	536	NH1	ARG	A	84	-5.426	-2.351	25.741	1.000	15.53
ATOM	537	NH2	ARG	A	84	-6.608	-2.073	23.781	1.000	24.30
ATOM	538	C	ARG	A	84	0.032	-1.353	24.874	1.000	25.02
ATOM	539	O	ARG	A	84	-0.089	-1.712	23.702	1.000	21.04
ATOM	540	N	VAL	A	85	0.337	-2.204	25.856	1.000	14.13
ATOM	541	CA	VAL	A	85	0.491	-3.624	25.512	1.000	14.38
ATOM	542	CB	VAL	A	85	1.464	-4.344	26.455	1.000	9.78
ATOM	543	CG1	VAL	A	85	1.425	-5.848	26.218	1.000	17.73
ATOM	544	CG2	VAL	A	85	2.881	-3.814	26.306	1.000	12.51
ATOM	545	C	VAL	A	85	-0.863	-4.313	25.593	1.000	24.23
ATOM	546	O	VAL	A	85	-1.573	-4.163	26.594	1.000	24.70
ATOM	547	N	LYS	A	86	-1.270	-5.081	24.590	1.000	22.80
ATOM	548	CA	LYS	A	86	-2.572	-5.741	24.686	1.000	22.12
ATOM	549	CB	LYS	A	86	-3.307	-5.564	23.347	1.000	31.33
ATOM	550	CG	LYS	A	86	-3.256	-4.147	22.803	1.000	27.28
ATOM	551	CD	LYS	A	86	-3.691	-4.077	21.352	1.000	33.19
ATOM	552	CE	LYS	A	86	-4.193	-2.688	20.990	1.000	43.70
ATOM	553	NZ	LYS	A	86	-4.520	-2.549	19.542	1.000	37.64
ATOM	554	C	LYS	A	86	-2.483	-7.222	25.020	1.000	24.22
ATOM	555	O	LYS	A	86	-1.658	-7.961	24.475	1.000	27.05
ATOM	556	N	LEU	A	87	-3.358	-7.682	25.911	1.000	23.05
ATOM	557	CA	LEU	A	87	-3.530	-9.107	26.143	1.000	23.37
ATOM	558	CB	LEU	A	87	-4.250	-9.392	27.460	1.000	24.62
ATOM	559	CG	LEU	A	87	-3.733	-8.696	28.711	1.000	27.34
ATOM	560	CD1	LEU	A	87	-4.614	-9.032	29.904	1.000	20.48
ATOM	561	CD2	LEU	A	87	-2.284	-9.078	28.973	1.000	32.54
ATOM	562	C	LEU	A	87	-4.360	-9.720	25.020	1.000	26.94
ATOM	563	O	LEU	A	87	-5.318	-9.094	24.555	1.000	38.77
ATOM	564	N	SER	A	88	-4.021	-10.925	24.581	1.000	33.75
ATOM	565	CA	SER	A	88	-4.872	-11.557	23.567	1.000	42.66
ATOM	566	CB	SER	A	88	-4.317	-12.913	23.154	1.000	46.57
ATOM	567	OG	SER	A	88	-4.765	-13.947	24.014	1.000	59.78
ATOM	568	C	SER	A	88	-6.292	-11.680	24.113	1.000	52.63
ATOM	569	O	SER	A	88	-6.499	-11.777	25.325	1.000	40.47
ATOM	570	N	ASN	A	89	-7.274	-11.656	23.225	1.000	65.95
ATOM	571	CA	ASN	A	89	-8.680	-11.790	23.586	1.000	71.68

**FIGURE 17**

ATOM	572	CB	ASN	A	89	-9.528	-11.132	22.496	1.000	75.26
ATOM	573	CG	ASN	A	89	-8.793	-11.244	21.163	1.000	78.86
ATOM	574	OD1	ASN	A	89	-7.806	-10.546	20.946	1.000	71.99
ATOM	575	ND2	ASN	A	89	-9.271	-12.122	20.293	1.000	90.92
ATOM	576	C	ASN	A	89	-9.057	-13.256	23.738	1.000	79.05
ATOM	577	O	ASN	A	89	-8.808	-14.039	22.811	1.000	73.71
ATOM	578	N	VAL	A	90	-9.633	-13.639	24.875	1.000	87.92
ATOM	579	CA	VAL	A	90	-9.929	-15.052	25.128	1.000	94.68
ATOM	580	CB	VAL	A	90	-8.920	-15.629	26.140	1.000	89.31
ATOM	581	CG1	VAL	A	90	-7.494	-15.497	25.590	1.000	54.27
ATOM	582	CG2	VAL	A	90	-9.031	-14.923	27.491	1.000	100.28
ATOM	583	C	VAL	A	90	-11.354	-15.293	25.619	1.000	102.19
ATOM	584	O	VAL	A	90	-12.315	-14.798	25.014	1.000	100.56
ATOM	585	N	ASP	A	91	-11.498	-16.059	26.693	1.000	105.22
ATOM	586	CA	ASP	A	91	-12.783	-16.447	27.271	1.000	108.70
ATOM	587	CB	ASP	A	91	-12.578	-17.068	28.656	1.000	107.42
ATOM	588	CG	ASP	A	91	-13.530	-18.205	28.939	1.000	106.43
ATOM	589	OD1	ASP	A	91	-13.926	-18.900	27.974	1.000	113.61
ATOM	590	OD2	ASP	A	91	-13.894	-18.413	30.116	1.000	86.41
ATOM	591	C	ASP	A	91	-13.743	-15.268	27.371	1.000	115.28
ATOM	592	O	ASP	A	91	-13.390	-14.223	27.924	1.000	126.76
ATOM	593	N	ASP	A	92	-14.952	-15.429	26.834	1.000	116.43
ATOM	594	CA	ASP	A	92	-15.914	-14.333	26.741	1.000	116.50
ATOM	595	CB	ASP	A	92	-16.500	-13.952	28.090	1.000	111.11
ATOM	596	CG	ASP	A	92	-17.029	-15.093	28.929	1.000	103.39
ATOM	597	OD1	ASP	A	92	-17.835	-15.908	28.441	1.000	70.91
ATOM	598	OD2	ASP	A	92	-16.639	-15.180	30.116	1.000	105.06
ATOM	599	C	ASP	A	92	-15.224	-13.122	26.103	1.000	121.44
ATOM	600	O	ASP	A	92	-14.846	-13.211	24.935	1.000	119.15
ATOM	601	N	ASP	A	93	-15.077	-12.068	26.886	1.000	124.91
ATOM	602	CA	ASP	A	93	-14.260	-10.887	26.698	1.000	127.04
ATOM	603	CB	ASP	A	93	-13.201	-11.126	25.615	1.000	127.70
ATOM	604	CG	ASP	A	93	-13.710	-10.960	24.174	1.000	128.89
ATOM	605	OD1	ASP	A	93	-14.877	-11.323	23.869	1.000	136.07
ATOM	606	OD2	ASP	A	93	-12.928	-10.464	23.315	1.000	126.93
ATOM	607	C	ASP	A	93	-15.055	-9.617	26.384	1.000	125.66
ATOM	608	O	ASP	A	93	-15.775	-9.536	25.388	1.000	112.27
ATOM	609	N	PRO	A	94	-14.884	-8.640	27.272	1.000	123.81
ATOM	610	CA	PRO	A	94	-15.331	-7.253	27.126	1.000	114.77
ATOM	611	CB	PRO	A	94	-15.751	-6.908	28.554	1.000	118.39
ATOM	612	CG	PRO	A	94	-14.893	-7.760	29.440	1.000	121.09
ATOM	613	CD	PRO	A	94	-14.224	-8.799	28.586	1.000	123.81
ATOM	614	C	PRO	A	94	-14.172	-6.360	26.685	1.000	99.08
ATOM	615	O	PRO	A	94	-14.080	-5.961	25.527	1.000	69.91
ATOM	616	N	CYS	A	95	-13.294	-6.071	27.635	1.000	91.61
ATOM	617	CA	CYS	A	95	-11.981	-5.485	27.441	1.000	80.21
ATOM	618	CB	CYS	A	95	-11.883	-4.014	27.797	1.000	80.05
ATOM	619	SG	CYS	A	95	-10.319	-3.186	27.438	1.000	75.64
ATOM	620	C	CYS	A	95	-10.991	-6.285	28.303	1.000	67.30
ATOM	621	O	CYS	A	95	-10.299	-5.735	29.149	1.000	48.15
ATOM	622	N	SER	A	96	-10.993	-7.580	28.030	1.000	62.04
ATOM	623	CA	SER	A	96	-10.102	-8.548	28.645	1.000	49.24

FIGURE 18

ATOM	624	CB	SER	A	96	-10.644	-9.959	28.392	1.000	47.34
ATOM	625	OG	SER	A	96	-10.772	-10.165	26.989	1.000	35.99
ATOM	626	C	SER	A	96	-8.689	-8.404	28.091	1.000	40.83
ATOM	627	O	SER	A	96	-7.762	-9.091	28.530	1.000	43.79
ATOM	628	N	ASP	A	97	-8.519	-7.503	27.119	1.000	33.54
ATOM	629	CA	ASP	A	97	-7.200	-7.260	26.543	1.000	26.97
ATOM	630	CB	ASP	A	97	-7.333	-6.817	25.088	1.000	24.79
ATOM	631	CG	ASP	A	97	-7.611	-5.353	24.842	1.000	31.75
ATOM	632	OD1	ASP	A	97	-7.973	-4.566	25.740	1.000	34.88
ATOM	633	OD2	ASP	A	97	-7.473	-4.920	23.667	1.000	32.46
ATOM	634	C	ASP	A	97	-6.406	-6.227	27.331	1.000	19.31
ATOM	635	O	ASP	A	97	-5.239	-6.008	27.001	1.000	32.90
ATOM	636	N	TYR	A	98	-7.001	-5.563	28.319	1.000	21.87
ATOM	637	CA	TYR	A	98	-6.317	-4.446	28.958	1.000	24.52
ATOM	638	CB	TYR	A	98	-7.294	-3.441	29.604	1.000	22.29
ATOM	639	CG	TYR	A	98	-6.556	-2.288	30.277	1.000	21.76
ATOM	640	CD1	TYR	A	98	-6.012	-1.275	29.489	1.000	23.46
ATOM	641	CE1	TYR	A	98	-5.324	-0.202	30.044	1.000	12.80
ATOM	642	CZ	TYR	A	98	-5.184	-0.152	31.415	1.000	16.57
ATOM	643	OH	TYR	A	98	-4.516	0.900	32.001	1.000	20.04
ATOM	644	CE2	TYR	A	98	-5.710	-1.138	32.234	1.000	21.65
ATOM	645	CD2	TYR	A	98	-6.388	-2.192	31.652	1.000	22.47
ATOM	646	C	TYR	A	98	-5.329	-4.852	30.045	1.000	23.39
ATOM	647	O	TYR	A	98	-5.609	-5.609	30.964	1.000	28.32
ATOM	648	N	ILE	A	99	-4.143	-4.250	29.978	1.000	19.82
ATOM	649	CA	ILE	A	99	-3.247	-4.242	31.130	1.000	21.08
ATOM	650	CB	ILE	A	99	-2.185	-5.354	31.091	1.000	21.45
ATOM	651	CG1	ILE	A	99	-1.169	-5.304	32.224	1.000	13.12
ATOM	652	CD1	ILE	A	99	-0.466	-6.601	32.573	1.000	15.73
ATOM	653	CG2	ILE	A	99	-1.481	-5.344	29.737	1.000	24.91
ATOM	654	C	ILE	A	99	-2.593	-2.867	31.218	1.000	17.86
ATOM	655	O	ILE	A	99	-2.362	-2.161	30.235	1.000	23.00
ATOM	656	N	ASN	A	100	-2.271	-2.426	32.429	1.000	17.97
ATOM	657	CA	ASN	A	100	-1.523	-1.168	32.506	1.000	16.53
ATOM	658	CB	ASN	A	100	-1.696	-0.583	33.904	1.000	15.17
ATOM	659	CG	ASN	A	100	-1.169	0.837	33.940	1.000	17.63
ATOM	660	OD1	ASN	A	100	-0.087	1.081	33.409	1.000	19.68
ATOM	661	ND2	ASN	A	100	-1.931	1.727	34.566	1.000	19.64
ATOM	662	C	ASN	A	100	-0.064	-1.408	32.144	1.000	20.69
ATOM	663	O	ASN	A	100	0.784	-1.727	32.977	1.000	13.39
ATOM	664	N	ALA	A	101	0.246	-1.268	30.851	1.000	11.73
ATOM	665	CA	ALA	A	101	1.586	-1.586	30.370	1.000	13.46
ATOM	666	CB	ALA	A	101	1.737	-3.096	30.235	1.000	16.17
ATOM	667	C	ALA	A	101	1.842	-0.930	29.026	1.000	14.30
ATOM	668	O	ALA	A	101	0.883	-0.739	28.277	1.000	15.61
ATOM	669	N	SER	A	102	3.088	-0.603	28.708	1.000	17.77
ATOM	670	CA	SER	A	102	3.385	0.102	27.472	1.000	18.13
ATOM	671	CB	SER	A	102	3.627	1.593	27.759	1.000	13.36
ATOM	672	OG	SER	A	102	2.735	2.076	28.738	1.000	20.39
ATOM	673	C	SER	A	102	4.623	-0.444	26.786	1.000	23.90
ATOM	674	O	SER	A	102	5.568	-0.832	27.475	1.000	22.19
ATOM	675	N	TYR	A	103	4.639	-0.454	25.452	1.000	16.79

**FIGURE 19**

ATOM	676	CA	TYR	A	103	5.871	-0.877	24.793	1.000	10.43
ATOM	677	CB	TYR	A	103	5.619	-1.287	23.347	1.000	16.27
ATOM	678	CG	TYR	A	103	4.840	-2.567	23.157	1.000	15.11
ATOM	679	CD1	TYR	A	103	5.421	-3.802	23.412	1.000	18.80
ATOM	680	CE1	TYR	A	103	4.704	-4.978	23.232	1.000	22.75
ATOM	681	CZ	TYR	A	103	3.396	-4.922	22.798	1.000	19.98
ATOM	682	OH	TYR	A	103	2.689	-6.094	22.625	1.000	16.85
ATOM	683	CE2	TYR	A	103	2.797	-3.704	22.536	1.000	14.29
ATOM	684	CD2	TYR	A	103	3.517	-2.540	22.714	1.000	12.99
ATOM	685	C	TYR	A	103	6.847	0.293	24.853	1.000	19.42
ATOM	686	O	TYR	A	103	6.398	1.440	24.787	1.000	21.35
ATOM	687	N	ILE	A	104	8.143	0.039	24.983	1.000	20.28
ATOM	688	CA	ILE	A	104	9.090	1.151	25.068	1.000	18.75
ATOM	689	CB	ILE	A	104	9.522	1.444	26.516	1.000	25.72
ATOM	690	CG1	ILE	A	104	8.372	1.673	27.507	1.000	19.54
ATOM	691	CD1	ILE	A	104	7.657	2.991	27.243	1.000	24.18
ATOM	692	CG2	ILE	A	104	10.466	2.640	26.556	1.000	25.08
ATOM	693	C	ILE	A	104	10.321	0.843	24.229	1.000	18.91
ATOM	694	O	ILE	A	104	10.899	-0.236	24.356	1.000	21.99
ATOM	695	N	PRO	A	105	10.719	1.777	23.376	1.000	25.40
ATOM	696	CA	PRO	A	105	11.854	1.513	22.482	1.000	23.49
ATOM	697	CB	PRO	A	105	11.761	2.641	21.457	1.000	25.41
ATOM	698	CG	PRO	A	105	11.030	3.747	22.133	1.000	26.30
ATOM	699	CD	PRO	A	105	10.166	3.121	23.187	1.000	24.38
ATOM	700	C	PRO	A	105	13.165	1.602	23.249	1.000	24.84
ATOM	701	O	PRO	A	105	13.255	2.321	24.246	1.000	19.70
ATOM	702	N	GLY	A	106	14.176	0.872	22.788	1.000	21.42
ATOM	703	CA	GLY	A	106	15.485	1.020	23.423	1.000	28.59
ATOM	704	C	GLY	A	106	16.527	1.498	22.425	1.000	30.55
ATOM	705	O	GLY	A	106	16.222	2.089	21.395	1.000	20.21
ATOM	706	N	ASN	A	107	17.796	1.244	22.710	1.000	32.09
ATOM	707	CA	ASN	A	107	18.884	1.677	21.850	1.000	26.56
ATOM	708	CB	ASN	A	107	20.219	1.386	22.552	1.000	28.73
ATOM	709	CG	ASN	A	107	20.932	2.668	22.930	1.000	36.73
ATOM	710	OD1	ASN	A	107	20.436	3.454	23.736	1.000	67.71
ATOM	711	ND2	ASN	A	107	22.095	2.891	22.331	1.000	51.19
ATOM	712	C	ASN	A	107	18.828	0.985	20.497	1.000	33.29
ATOM	713	O	ASN	A	107	19.161	1.589	19.469	1.000	31.37
ATOM	714	N	ASN	A	108	18.394	-0.282	20.495	1.000	25.02
ATOM	715	CA	ASN	A	108	18.476	-1.030	19.241	1.000	37.28
ATOM	716	CB	ASN	A	108	19.377	-2.255	19.480	1.000	49.51
ATOM	717	CG	ASN	A	108	20.794	-1.843	19.847	1.000	47.25
ATOM	718	OD1	ASN	A	108	21.555	-1.301	19.041	1.000	51.78
ATOM	719	ND2	ASN	A	108	21.149	-2.103	21.097	1.000	32.89
ATOM	720	C	ASN	A	108	17.157	-1.472	18.642	1.000	41.66
ATOM	721	O	ASN	A	108	17.148	-1.922	17.485	1.000	47.43
ATOM	722	N	PHE	A	109	16.007	-1.389	19.306	1.000	28.44
ATOM	723	CA	PHE	A	109	14.782	-1.693	18.557	1.000	26.26
ATOM	724	CB	PHE	A	109	14.575	-3.179	18.334	1.000	25.58
ATOM	725	CG	PHE	A	109	14.889	-4.154	19.423	1.000	33.48
ATOM	726	CD1	PHE	A	109	13.866	-4.796	20.113	1.000	34.64
ATOM	727	CE1	PHE	A	109	14.130	-5.705	21.121	1.000	41.36

**FIGURE 20**



ATOM	728	CZ	PHE	A	109	15.442	-5.997	21.459	1.000	37.10
ATOM	729	CE2	PHE	A	109	16.469	-5.365	20.782	1.000	39.85
ATOM	730	CD2	PHE	A	109	16.198	-4.452	19.778	1.000	33.66
ATOM	731	C	PHE	A	109	13.572	-1.059	19.243	1.000	30.59
ATOM	732	O	PHE	A	109	13.663	-0.571	20.375	1.000	28.48
ATOM	733	N	ARG	A	110	12.446	-1.068	18.531	1.000	21.36
ATOM	734	CA	ARG	A	110	11.262	-0.340	18.981	1.000	27.72
ATOM	735	CB	ARG	A	110	10.239	-0.271	17.833	1.000	27.18
ATOM	736	CG	ARG	A	110	10.751	0.480	16.614	1.000	42.55
ATOM	737	CD	ARG	A	110	10.188	1.893	16.543	1.000	49.91
ATOM	738	NE	ARG	A	110	11.080	2.835	17.214	1.000	61.23
ATOM	739	CZ	ARG	A	110	10.772	4.078	17.551	1.000	65.49
ATOM	740	NH1	ARG	A	110	9.569	4.569	17.287	1.000	60.40
ATOM	741	NH2	ARG	A	110	11.681	4.823	18.164	1.000	70.08
ATOM	742	C	ARG	A	110	10.581	-0.929	20.206	1.000	31.32
ATOM	743	O	ARG	A	110	10.063	-0.191	21.048	1.000	19.57
ATOM	744	N	ARG	A	111	10.536	-2.256	20.315	1.000	31.03
ATOM	745	CA	ARG	A	111	9.825	-2.858	21.447	1.000	28.45
ATOM	746	CB	ARG	A	111	8.752	-3.826	20.971	1.000	24.30
ATOM	747	CG	ARG	A	111	7.678	-3.274	20.054	1.000	26.60
ATOM	748	CD	ARG	A	111	6.895	-4.443	19.432	1.000	26.88
ATOM	749	NE	ARG	A	111	5.494	-4.083	19.259	1.000	39.04
ATOM	750	CZ	ARG	A	111	4.427	-4.851	19.403	1.000	38.77
ATOM	751	NH1	ARG	A	111	4.532	-6.128	19.745	1.000	39.25
ATOM	752	NH2	ARG	A	111	3.226	-4.319	19.199	1.000	38.01
ATOM	753	C	ARG	A	111	10.821	-3.575	22.352	1.000	27.13
ATOM	754	O	ARG	A	111	10.716	-4.761	22.672	1.000	22.92
ATOM	755	N	GLU	A	112	11.827	-2.801	22.753	1.000	24.46
ATOM	756	CA	GLU	A	112	12.921	-3.388	23.527	1.000	20.04
ATOM	757	CB	GLU	A	112	14.147	-2.484	23.425	1.000	26.41
ATOM	758	CG	GLU	A	112	15.469	-3.181	23.658	1.000	27.73
ATOM	759	CD	GLU	A	112	16.662	-2.423	23.112	1.000	26.53
ATOM	760	OE1	GLU	A	112	17.767	-2.676	23.628	1.000	22.28
ATOM	761	OE2	GLU	A	112	16.520	-1.592	22.191	1.000	24.96
ATOM	762	C	GLU	A	112	12.523	-3.597	24.976	1.000	14.90
ATOM	763	O	GLU	A	112	13.092	-4.442	25.668	1.000	19.62
ATOM	764	N	TYR	A	113	11.540	-2.823	25.426	1.000	12.89
ATOM	765	CA	TYR	A	113	11.084	-2.956	26.807	1.000	16.51
ATOM	766	CB	TYR	A	113	11.619	-1.873	27.733	1.000	20.74
ATOM	767	CG	TYR	A	113	13.078	-1.515	27.619	1.000	26.13
ATOM	768	CD1	TYR	A	113	13.516	-0.557	26.718	1.000	18.47
ATOM	769	CE1	TYR	A	113	14.856	-0.215	26.600	1.000	15.41
ATOM	770	CZ	TYR	A	113	15.762	-0.861	27.419	1.000	20.13
ATOM	771	OH	TYR	A	113	17.101	-0.557	27.351	1.000	18.27
ATOM	772	CE2	TYR	A	113	15.348	-1.814	28.327	1.000	21.37
ATOM	773	CD2	TYR	A	113	14.015	-2.150	28.439	1.000	19.35
ATOM	774	C	TYR	A	113	9.561	-2.892	26.883	1.000	12.89
ATOM	775	O	TYR	A	113	8.890	-2.269	26.069	1.000	17.48
ATOM	776	N	ILE	A	114	9.052	-3.550	27.919	1.000	15.07
ATOM	777	CA	ILE	A	114	7.656	-3.353	28.290	1.000	16.69
ATOM	778	CB	ILE	A	114	6.820	-4.639	28.237	1.000	20.07
ATOM	779	CG1	ILE	A	114	6.471	-5.095	26.816	1.000	12.15

FIGURE 21

ATOM	780	CD1	ILE	A	114	6.039	-6.546	26.725	1.000	8.94
ATOM	781	CG2	ILE	A	114	5.565	-4.473	29.088	1.000	8.30
ATOM	782	C	ILE	A	114	7.694	-2.763	29.700	1.000	14.06
ATOM	783	O	ILE	A	114	8.303	-3.348	30.598	1.000	21.26
ATOM	784	N	VAL	A	115	7.089	-1.596	29.869	1.000	14.01
ATOM	785	CA	VAL	A	115	7.062	-0.937	31.174	1.000	13.47
ATOM	786	CB	VAL	A	115	7.364	0.562	31.033	1.000	21.33
ATOM	787	CG1	VAL	A	115	6.907	1.314	32.276	1.000	36.92
ATOM	788	CG2	VAL	A	115	8.848	0.796	30.787	1.000	22.96
ATOM	789	C	VAL	A	115	5.679	-1.158	31.777	1.000	17.22
ATOM	790	O	VAL	A	115	4.690	-0.963	31.064	1.000	14.66
ATOM	791	N	THR	A	116	5.582	-1.561	33.041	1.000	12.85
ATOM	792	CA	THR	A	116	4.240	-1.763	33.594	1.000	13.54
ATOM	793	CB	THR	A	116	3.847	-3.242	33.400	1.000	21.30
ATOM	794	OG1	THR	A	116	2.453	-3.453	33.671	1.000	12.82
ATOM	795	CG2	THR	A	116	4.622	-4.140	34.364	1.000	10.46
ATOM	796	C	THR	A	116	4.203	-1.329	35.050	1.000	19.71
ATOM	797	O	THR	A	116	5.232	-0.961	35.629	1.000	17.41
ATOM	798	N	GLN	A	117	3.030	-1.346	35.671	1.000	15.37
ATOM	799	CA	GLN	A	117	2.879	-0.940	37.068	1.000	16.82
ATOM	800	CB	GLN	A	117	1.431	-0.504	37.325	1.000	15.09
ATOM	801	CG	GLN	A	117	0.408	-1.602	37.048	1.000	19.18
ATOM	802	CD	GLN	A	117	-1.027	-1.187	37.299	1.000	20.69
ATOM	803	OE1	GLN	A	117	-1.353	-0.007	37.405	1.000	25.69
ATOM	804	NE2	GLN	A	117	-1.921	-2.158	37.408	1.000	18.66
ATOM	805	C	GLN	A	117	3.256	-2.108	37.959	1.000	19.79
ATOM	806	O	GLN	A	117	3.305	-3.228	37.431	1.000	16.87
ATOM	807	N	GLY	A	118	3.513	-1.947	39.253	1.000	17.49
ATOM	808	CA	GLY	A	118	3.594	-3.168	40.078	1.000	15.99
ATOM	809	C	GLY	A	118	2.238	-3.855	40.061	1.000	17.56
ATOM	810	O	GLY	A	118	1.217	-3.179	40.257	1.000	18.31
ATOM	811	N	PRO	A	119	2.182	-5.164	39.834	1.000	24.40
ATOM	812	CA	PRO	A	119	0.885	-5.845	39.699	1.000	30.48
ATOM	813	CB	PRO	A	119	1.272	-7.296	39.388	1.000	31.82
ATOM	814	CG	PRO	A	119	2.683	-7.227	38.899	1.000	29.01
ATOM	815	CD	PRO	A	119	3.310	-6.102	39.686	1.000	21.75
ATOM	816	C	PRO	A	119	0.033	-5.781	40.966	1.000	34.89
ATOM	817	O	PRO	A	119	0.531	-5.756	42.091	1.000	19.13
ATOM	818	N	LEU	A	120	-1.288	-5.753	40.778	1.000	30.42
ATOM	819	CA	LEU	A	120	-2.231	-5.801	41.886	1.000	18.88
ATOM	820	CB	LEU	A	120	-3.467	-4.949	41.613	1.000	22.55
ATOM	821	CG	LEU	A	120	-3.264	-3.439	41.494	1.000	24.74
ATOM	822	CD1	LEU	A	120	-4.202	-2.849	40.458	1.000	19.55
ATOM	823	CD2	LEU	A	120	-3.482	-2.766	42.842	1.000	27.98
ATOM	824	C	LEU	A	120	-2.690	-7.241	42.099	1.000	25.27
ATOM	825	O	LEU	A	120	-2.588	-8.006	41.139	1.000	22.48
ATOM	826	N	PRO	A	121	-3.160	-7.550	43.298	1.000	32.56
ATOM	827	CA	PRO	A	121	-3.719	-8.872	43.596	1.000	22.33
ATOM	828	CB	PRO	A	121	-4.528	-8.621	44.871	1.000	23.26
ATOM	829	CG	PRO	A	121	-3.777	-7.531	45.557	1.000	29.77
ATOM	830	CD	PRO	A	121	-3.184	-6.660	44.477	1.000	30.93
ATOM	831	C	PRO	A	121	-4.638	-9.339	42.476	1.000	23.80

FIGURE 22

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Three Dimensional Coordinates of HPTPbeta

ATOM	832	O	PRO	A	121	-4.596	-10.483	42.026	1.000	34.64
ATOM	833	N	GLY	A	122	-5.453	-8.405	41.983	1.000	24.62
ATOM	834	CA	GLY	A	122	-6.344	-8.742	40.887	1.000	23.65
ATOM	835	C	GLY	A	122	-5.751	-8.605	39.505	1.000	23.11
ATOM	836	O	GLY	A	122	-6.478	-8.836	38.533	1.000	28.12
ATOM	837	N	THR	A	123	-4.480	-8.246	39.320	1.000	20.65
ATOM	838	CA	THR	A	123	-3.939	-8.167	37.962	1.000	21.61
ATOM	839	CB	THR	A	123	-3.544	-6.732	37.551	1.000	26.10
ATOM	840	OG1	THR	A	123	-2.505	-6.195	38.380	1.000	23.39
ATOM	841	CG2	THR	A	123	-4.762	-5.828	37.710	1.000	18.68
ATOM	842	C	THR	A	123	-2.713	-9.052	37.765	1.000	24.76
ATOM	843	O	THR	A	123	-2.184	-9.097	36.653	1.000	25.68
ATOM	844	N	LYS	A	124	-2.249	-9.744	38.806	1.000	23.64
ATOM	845	CA	LYS	A	124	-1.015	-10.520	38.633	1.000	29.85
ATOM	846	CB	LYS	A	124	-0.485	-10.990	39.979	1.000	33.93
ATOM	847	CG	LYS	A	124	-1.476	-11.566	40.964	1.000	33.84
ATOM	848	CD	LYS	A	124	-0.857	-11.618	42.358	1.000	31.42
ATOM	849	CE	LYS	A	124	-1.630	-12.583	43.246	1.000	29.23
ATOM	850	NZ	LYS	A	124	-0.899	-12.844	44.518	1.000	57.02
ATOM	851	C	LYS	A	124	-1.209	-11.674	37.656	1.000	25.22
ATOM	852	O	LYS	A	124	-0.283	-12.089	36.954	1.000	23.70
ATOM	853	N	ASP	A	125	-2.412	-12.221	37.545	1.000	18.28
ATOM	854	CA	ASP	A	125	-2.657	-13.219	36.515	1.000	12.12
ATOM	855	CB	ASP	A	125	-4.097	-13.722	36.640	1.000	22.43
ATOM	856	CG	ASP	A	125	-4.249	-14.657	37.831	1.000	27.90
ATOM	857	OD1	ASP	A	125	-3.285	-14.704	38.618	1.000	29.09
ATOM	858	OD2	ASP	A	125	-5.301	-15.311	37.945	1.000	33.37
ATOM	859	C	ASP	A	125	-2.450	-12.633	35.120	1.000	23.84
ATOM	860	O	ASP	A	125	-1.964	-13.280	34.191	1.000	23.80
ATOM	861	N	ASP	A	126	-2.855	-11.375	34.973	1.000	22.66
ATOM	862	CA	ASP	A	126	-2.745	-10.631	33.732	1.000	16.52
ATOM	863	CB	ASP	A	126	-3.480	-9.297	33.831	1.000	25.64
ATOM	864	CG	ASP	A	126	-4.972	-9.394	33.608	1.000	41.42
ATOM	865	OD1	ASP	A	126	-5.419	-10.439	33.084	1.000	47.26
ATOM	866	OD2	ASP	A	126	-5.703	-8.435	33.953	1.000	43.25
ATOM	867	C	ASP	A	126	-1.274	-10.385	33.422	1.000	17.37
ATOM	868	O	ASP	A	126	-0.798	-10.492	32.297	1.000	16.89
ATOM	869	N	PHE	A	127	-0.544	-10.017	34.473	1.000	17.74
ATOM	870	CA	PHE	A	127	0.871	-9.707	34.284	1.000	21.41
ATOM	871	CB	PHE	A	127	1.493	-9.263	35.604	1.000	21.46
ATOM	872	CG	PHE	A	127	3.004	-9.193	35.632	1.000	22.78
ATOM	873	CD1	PHE	A	127	3.643	-8.020	35.266	1.000	12.05
ATOM	874	CE1	PHE	A	127	5.024	-7.924	35.292	1.000	16.72
ATOM	875	CZ	PHE	A	127	5.790	-9.004	35.682	1.000	21.66
ATOM	876	CE2	PHE	A	127	5.172	-10.189	36.044	1.000	19.24
ATOM	877	CD2	PHE	A	127	3.794	-10.266	36.036	1.000	18.50
ATOM	878	C	PHE	A	127	1.578	-10.931	33.700	1.000	25.45
ATOM	879	O	PHE	A	127	2.374	-10.786	32.784	1.000	21.87
ATOM	880	N	TRP	A	128	1.280	-12.107	34.243	1.000	21.42
ATOM	881	CA	TRP	A	128	1.958	-13.350	33.864	1.000	15.43
ATOM	882	CB	TRP	A	128	1.695	-14.415	34.942	1.000	17.74
ATOM	883	CG	TRP	A	128	2.565	-14.200	36.157	1.000	13.35

**FIGURE 23**

ATOM	884	CD1	TRP	A	128	2.171	-14.021	37.449	1.000	18.06
ATOM	885	NE1	TRP	A	128	3.264	-13.857	38.263	1.000	16.29
ATOM	886	CE2	TRP	A	128	4.398	-13.927	37.497	1.000	13.72
ATOM	887	CD2	TRP	A	128	3.999	-14.142	36.169	1.000	15.37
ATOM	888	CE3	TRP	A	128	4.986	-14.251	35.178	1.000	20.85
ATOM	889	CZ3	TRP	A	128	6.319	-14.148	35.521	1.000	13.01
ATOM	890	CH2	TRP	A	128	6.684	-13.932	36.859	1.000	20.19
ATOM	891	CZ2	TRP	A	128	5.744	-13.822	37.849	1.000	22.48
ATOM	892	C	TRP	A	128	1.529	-13.783	32.480	1.000	11.86
ATOM	893	O	TRP	A	128	2.310	-14.288	31.668	1.000	21.55
ATOM	894	N	LYS	A	129	0.267	-13.551	32.155	1.000	16.27
ATOM	895	CA	LYS	A	129	-0.214	-13.821	30.798	1.000	20.73
ATOM	896	CB	LYS	A	129	-1.732	-13.626	30.741	1.000	17.81
ATOM	897	CG	LYS	A	129	-2.314	-13.971	29.375	1.000	25.97
ATOM	898	CD	LYS	A	129	-3.752	-13.477	29.289	1.000	37.98
ATOM	899	CE	LYS	A	129	-4.458	-14.085	28.083	1.000	38.08
ATOM	900	NZ	LYS	A	129	-4.700	-15.547	28.280	1.000	56.47
ATOM	901	C	LYS	A	129	0.480	-12.919	29.785	1.000	24.29
ATOM	902	O	LYS	A	129	0.862	-13.346	28.692	1.000	28.21
ATOM	903	N	MET	A	130	0.668	-11.651	30.143	1.000	19.69
ATOM	904	CA	MET	A	130	1.478	-10.735	29.351	1.000	15.73
ATOM	905	CB	MET	A	130	1.576	-9.342	29.996	1.000	13.64
ATOM	906	CG	MET	A	130	2.430	-8.380	29.162	1.000	18.33
ATOM	907	SD	MET	A	130	2.476	-6.702	29.808	1.000	23.04
ATOM	908	CE	MET	A	130	3.483	-6.962	31.274	1.000	22.96
ATOM	909	C	MET	A	130	2.897	-11.282	29.166	1.000	14.42
ATOM	910	O	MET	A	130	3.384	-11.324	28.034	1.000	21.88
ATOM	911	N	VAL	A	131	3.537	-11.664	30.266	1.000	11.85
ATOM	912	CA	VAL	A	131	4.902	-12.202	30.262	1.000	21.55
ATOM	913	CB	VAL	A	131	5.372	-12.557	31.682	1.000	18.65
ATOM	914	CG1	VAL	A	131	6.598	-13.458	31.679	1.000	16.39
ATOM	915	CG2	VAL	A	131	5.688	-11.303	32.508	1.000	13.87
ATOM	916	C	VAL	A	131	4.984	-13.418	29.333	1.000	26.29
ATOM	917	O	VAL	A	131	5.892	-13.533	28.500	1.000	16.82
ATOM	918	N	TRP	A	132	4.026	-14.334	29.437	1.000	24.10
ATOM	919	CA	TRP	A	132	3.985	-15.531	28.598	1.000	23.86
ATOM	920	CB	TRP	A	132	2.902	-16.495	29.121	1.000	27.36
ATOM	921	CG	TRP	A	132	2.771	-17.754	28.310	1.000	30.80
ATOM	922	CD1	TRP	A	132	1.818	-18.027	27.370	1.000	36.86
ATOM	923	NE1	TRP	A	132	2.017	-19.278	26.835	1.000	36.99
ATOM	924	CE2	TRP	A	132	3.115	-19.844	27.424	1.000	30.56
ATOM	925	CD2	TRP	A	132	3.613	-18.914	28.359	1.000	24.79
ATOM	926	CE3	TRP	A	132	4.745	-19.267	29.094	1.000	24.86
ATOM	927	CZ3	TRP	A	132	5.332	-20.499	28.890	1.000	26.51
ATOM	928	CH2	TRP	A	132	4.813	-21.405	27.955	1.000	24.87
ATOM	929	CZ2	TRP	A	132	3.706	-21.089	27.215	1.000	30.31
ATOM	930	C	TRP	A	132	3.747	-15.207	27.129	1.000	29.34
ATOM	931	O	TRP	A	132	4.450	-15.695	26.237	1.000	17.82
ATOM	932	N	GLU	A	133	2.744	-14.379	26.835	1.000	23.54
ATOM	933	CA	GLU	A	133	2.415	-14.062	25.448	1.000	23.03
ATOM	934	CB	GLU	A	133	1.100	-13.274	25.422	1.000	27.10
ATOM	935	CG	GLU	A	133	-0.095	-14.176	25.718	1.000	30.65

FIGURE 24

ATOM	936	CD	GLU	A	133	-1.396	-13.399	25.736	1.000	35.26
ATOM	937	OE1	GLU	A	133	-1.363	-12.159	25.561	1.000	34.94
ATOM	938	OE2	GLU	A	133	-2.444	-14.049	25.925	1.000	35.41
ATOM	939	C	GLU	A	133	3.490	-13.262	24.735	1.000	27.45
ATOM	940	O	GLU	A	133	3.689	-13.428	23.528	1.000	24.03
ATOM	941	N	GLN	A	134	4.197	-12.382	25.449	1.000	21.95
ATOM	942	CA	GLN	A	134	5.207	-11.554	24.787	1.000	17.30
ATOM	943	CB	GLN	A	134	5.310	-10.184	25.466	1.000	17.87
ATOM	944	CG	GLN	A	134	3.998	-9.411	25.524	1.000	15.39
ATOM	945	CD	GLN	A	134	3.647	-8.841	24.163	1.000	19.03
ATOM	946	OE1	GLN	A	134	4.481	-8.152	23.584	1.000	36.10
ATOM	947	NE2	GLN	A	134	2.453	-9.133	23.668	1.000	27.56
ATOM	948	C	GLN	A	134	6.576	-12.214	24.782	1.000	21.51
ATOM	949	O	GLN	A	134	7.556	-11.579	24.396	1.000	32.24
ATOM	950	N	ASN	A	135	6.677	-13.476	25.207	1.000	20.76
ATOM	951	CA	ASN	A	135	7.974	-14.146	25.117	1.000	19.02
ATOM	952	CB	ASN	A	135	8.406	-14.179	23.644	1.000	24.87
ATOM	953	CG	ASN	A	135	7.566	-15.129	22.810	1.000	36.12
ATOM	954	OD1	ASN	A	135	7.515	-16.331	23.072	1.000	34.91
ATOM	955	ND2	ASN	A	135	6.895	-14.604	21.788	1.000	45.85
ATOM	956	C	ASN	A	135	9.026	-13.459	25.974	1.000	21.43
ATOM	957	O	ASN	A	135	10.193	-13.337	25.602	1.000	20.37
ATOM	958	N	VAL	A	136	8.620	-12.988	27.148	1.000	16.96
ATOM	959	CA	VAL	A	136	9.529	-12.287	28.047	1.000	15.79
ATOM	960	CB	VAL	A	136	8.719	-11.486	29.093	1.000	11.80
ATOM	961	CG1	VAL	A	136	9.587	-11.074	30.260	1.000	9.82
ATOM	962	CG2	VAL	A	136	8.053	-10.279	28.431	1.000	16.29
ATOM	963	C	VAL	A	136	10.440	-13.264	28.760	1.000	18.01
ATOM	964	O	VAL	A	136	9.900	-14.252	29.262	1.000	28.46
ATOM	965	N	HIS	A	137	11.747	-13.025	28.820	1.000	17.89
ATOM	966	CA	HIS	A	137	12.634	-13.889	29.610	1.000	21.67
ATOM	967	CB	HIS	A	137	13.724	-14.513	28.743	1.000	30.48
ATOM	968	CG	HIS	A	137	13.253	-15.380	27.621	1.000	42.06
ATOM	969	ND1	HIS	A	137	14.124	-16.077	26.808	1.000	53.39
ATOM	970	CE1	HIS	A	137	13.449	-16.758	25.899	1.000	51.26
ATOM	971	NE2	HIS	A	137	12.159	-16.533	26.088	1.000	49.27
ATOM	972	CD2	HIS	A	137	12.018	-15.676	27.154	1.000	48.02
ATOM	973	C	HIS	A	137	13.263	-13.116	30.766	1.000	19.36
ATOM	974	O	HIS	A	137	13.818	-13.683	31.703	1.000	19.33
ATOM	975	N	ASN	A	138	13.190	-11.780	30.748	1.000	23.51
ATOM	976	CA	ASN	A	138	13.772	-11.010	31.842	1.000	19.39
ATOM	977	CB	ASN	A	138	15.045	-10.301	31.351	1.000	21.07
ATOM	978	CG	ASN	A	138	16.123	-11.316	30.999	1.000	26.12
ATOM	979	OD1	ASN	A	138	16.514	-11.460	29.841	1.000	27.41
ATOM	980	ND2	ASN	A	138	16.606	-12.026	32.011	1.000	23.04
ATOM	981	C	ASN	A	138	12.811	-9.974	32.413	1.000	21.29
ATOM	982	O	ASN	A	138	12.180	-9.217	31.666	1.000	16.20
ATOM	983	N	ILE	A	139	12.718	-9.937	33.737	1.000	17.13
ATOM	984	CA	ILE	A	139	11.859	-8.987	34.435	1.000	16.53
ATOM	985	CB	ILE	A	139	10.693	-9.655	35.187	1.000	17.07
ATOM	986	CG1	ILE	A	139	9.711	-10.424	34.296	1.000	17.67
ATOM	987	CD1	ILE	A	139	8.911	-11.494	35.031	1.000	15.33

**FIGURE 25**

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ATOM	988	CG2	ILE	A	139	9.941	-8.625	36.020	1.000	12.08
ATOM	989	C	ILE	A	139	12.694	-8.169	35.412	1.000	17.79
ATOM	990	O	ILE	A	139	13.465	-8.707	36.203	1.000	21.50
ATOM	991	N	VAL	A	140	12.560	-6.852	35.353	1.000	19.27
ATOM	992	CA	VAL	A	140	13.298	-5.966	36.242	1.000	20.43
ATOM	993	CB	VAL	A	140	14.088	-4.892	35.469	1.000	23.29
ATOM	994	CG1	VAL	A	140	14.892	-4.018	36.427	1.000	15.96
ATOM	995	CG2	VAL	A	140	14.965	-5.563	34.419	1.000	15.64
ATOM	996	C	VAL	A	140	12.331	-5.254	37.179	1.000	17.79
ATOM	997	O	VAL	A	140	11.385	-4.619	36.709	1.000	15.65
ATOM	998	N	MET	A	141	12.596	-5.376	38.473	1.000	19.78
ATOM	999	CA	MET	A	141	11.718	-4.726	39.452	1.000	23.36
ATOM	1000	CB	MET	A	141	11.016	-5.796	40.283	1.000	25.59
ATOM	1001	CG	MET	A	141	10.199	-5.282	41.461	1.000	21.23
ATOM	1002	SD	MET	A	141	9.408	-6.648	42.325	1.000	27.56
ATOM	1003	CE	MET	A	141	8.617	-5.832	43.707	1.000	31.17
ATOM	1004	C	MET	A	141	12.541	-3.772	40.294	1.000	27.26
ATOM	1005	O	MET	A	141	13.509	-4.208	40.923	1.000	19.70
ATOM	1006	N	VAL	A	142	12.179	-2.487	40.299	1.000	22.95
ATOM	1007	CA	VAL	A	142	12.981	-1.529	41.061	1.000	23.51
ATOM	1008	CB	VAL	A	142	13.642	-0.457	40.171	1.000	24.01
ATOM	1009	CG1	VAL	A	142	14.774	-1.104	39.384	1.000	28.07
ATOM	1010	CG2	VAL	A	142	12.631	0.200	39.250	1.000	26.62
ATOM	1011	C	VAL	A	142	12.151	-0.832	42.134	1.000	24.80
ATOM	1012	O	VAL	A	142	12.092	0.396	42.186	1.000	24.92
ATOM	1013	N	THR	A	143	11.544	-1.654	42.968	1.000	32.06
ATOM	1014	CA	THR	A	143	10.713	-1.262	44.092	1.000	31.60
ATOM	1015	CB	THR	A	143	9.303	-0.845	43.629	1.000	34.01
ATOM	1016	OG1	THR	A	143	8.553	-0.296	44.720	1.000	32.56
ATOM	1017	CG2	THR	A	143	8.489	-2.040	43.150	1.000	19.73
ATOM	1018	C	THR	A	143	10.608	-2.414	45.081	1.000	32.84
ATOM	1019	O	THR	A	143	10.735	-3.579	44.697	1.000	27.98
ATOM	1020	N	GLN	A	144	10.371	-2.074	46.348	1.000	33.83
ATOM	1021	CA	GLN	A	144	9.992	-3.090	47.327	1.000	31.46
ATOM	1022	CB	GLN	A	144	10.464	-2.772	48.733	1.000	28.66
ATOM	1023	CG	GLN	A	144	11.964	-2.806	48.954	1.000	39.24
ATOM	1024	CD	GLN	A	144	12.357	-2.317	50.339	1.000	47.09
ATOM	1025	OE1	GLN	A	144	12.240	-3.049	51.324	1.000	40.08
ATOM	1026	NE2	GLN	A	144	12.828	-1.075	50.438	1.000	32.97
ATOM	1027	C	GLN	A	144	8.469	-3.184	47.268	1.000	30.87
ATOM	1028	O	GLN	A	144	7.859	-2.272	46.701	1.000	27.64
ATOM	1029	N	CYS	A	145	7.887	-4.240	47.815	1.000	32.97
ATOM	1030	CA	CYS	A	145	6.434	-4.376	47.762	1.000	27.50
ATOM	1031	CB	CYS	A	145	6.053	-5.820	48.082	1.000	24.78
ATOM	1032	SG	CYS	A	145	6.485	-6.965	46.749	1.000	32.93
ATOM	1033	C	CYS	A	145	5.746	-3.404	48.716	1.000	29.39
ATOM	1034	O	CYS	A	145	4.579	-3.052	48.520	1.000	29.75
ATOM	1035	N	VAL	A	146	6.480	-2.988	49.733	1.000	32.17
ATOM	1036	CA	VAL	A	146	6.060	-2.022	50.744	1.000	32.69
ATOM	1037	CB	VAL	A	146	5.547	-2.672	52.039	1.000	35.63
ATOM	1038	CG1	VAL	A	146	4.981	-1.619	52.989	1.000	28.22
ATOM	1039	CG2	VAL	A	146	4.490	-3.724	51.746	1.000	39.32

**FIGURE 26**

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Three Dimensional Coordinates of HPTPbeta

ATOM	1040	C	VAL	A	146	7.238	-1.119	51.101	1.000	24.56
ATOM	1041	O	VAL	A	146	8.312	-1.600	51.466	1.000	30.54
ATOM	1042	N	GLU	A	147	7.053	0.184	50.987	1.000	26.82
ATOM	1043	CA	GLU	A	147	8.128	1.123	51.322	1.000	34.58
ATOM	1044	CB	GLU	A	147	8.516	1.929	50.080	1.000	36.31
ATOM	1045	CG	GLU	A	147	8.591	1.048	48.834	1.000	43.83
ATOM	1046	CD	GLU	A	147	9.589	1.535	47.809	1.000	42.03
ATOM	1047	OE1	GLU	A	147	9.517	2.715	47.414	1.000	36.27
ATOM	1048	OE2	GLU	A	147	10.460	0.748	47.383	1.000	38.56
ATOM	1049	C	GLU	A	147	7.682	2.020	52.466	1.000	43.00
ATOM	1050	O	GLU	A	147	6.842	2.895	52.262	1.000	36.39
ATOM	1051	N	LYS	A	148	8.228	1.770	53.651	1.000	53.50
ATOM	1052	CA	LYS	A	148	7.803	2.440	54.874	1.000	50.57
ATOM	1053	CB	LYS	A	148	8.242	3.904	54.859	1.000	53.82
ATOM	1054	CG	LYS	A	148	9.487	4.175	55.693	1.000	55.76
ATOM	1055	CD	LYS	A	148	9.736	5.666	55.836	1.000	61.51
ATOM	1056	CE	LYS	A	148	11.217	5.994	55.917	1.000	64.59
ATOM	1057	NZ	LYS	A	148	11.582	7.165	55.066	1.000	54.71
ATOM	1058	C	LYS	A	148	6.291	2.327	55.068	1.000	40.10
ATOM	1059	O	LYS	A	148	5.588	3.337	55.119	1.000	40.70
ATOM	1060	N	GLY	A	149	5.792	1.102	55.161	1.000	31.76
ATOM	1061	CA	GLY	A	149	4.396	0.812	55.408	1.000	38.69
ATOM	1062	C	GLY	A	149	3.455	1.021	54.249	1.000	45.94
ATOM	1063	O	GLY	A	149	2.303	0.575	54.255	1.000	42.79
ATOM	1064	N	ARG	A	150	3.889	1.707	53.188	1.000	44.38
ATOM	1065	CA	ARG	A	150	2.967	1.932	52.076	1.000	37.05
ATOM	1066	CB	ARG	A	150	3.179	3.306	51.450	1.000	43.59
ATOM	1067	CG	ARG	A	150	2.273	4.410	51.971	1.000	52.87
ATOM	1068	CD	ARG	A	150	2.530	5.696	51.196	1.000	65.25
ATOM	1069	NE	ARG	A	150	1.626	6.786	51.559	1.000	75.91
ATOM	1070	CZ	ARG	A	150	1.738	8.024	51.087	1.000	82.71
ATOM	1071	NH1	ARG	A	150	2.708	8.322	50.240	1.000	99.14
ATOM	1072	NH2	ARG	A	150	0.886	8.969	51.456	1.000	75.70
ATOM	1073	C	ARG	A	150	3.144	0.849	51.015	1.000	31.26
ATOM	1074	O	ARG	A	150	4.266	0.643	50.541	1.000	26.56
ATOM	1075	N	VAL	A	151	2.039	0.197	50.671	1.000	26.68
ATOM	1076	CA	VAL	A	151	2.035	-0.861	49.673	1.000	27.32
ATOM	1077	CB	VAL	A	151	0.713	-1.647	49.660	1.000	35.52
ATOM	1078	CG1	VAL	A	151	0.755	-2.776	48.637	1.000	33.72
ATOM	1079	CG2	VAL	A	151	0.441	-2.202	51.049	1.000	18.61
ATOM	1080	C	VAL	A	151	2.298	-0.281	48.288	1.000	28.80
ATOM	1081	O	VAL	A	151	1.563	0.579	47.806	1.000	38.64
ATOM	1082	N	LYS	A	152	3.371	-0.759	47.674	1.000	33.79
ATOM	1083	CA	LYS	A	152	3.788	-0.282	46.358	1.000	32.44
ATOM	1084	CB	LYS	A	152	5.272	0.088	46.373	1.000	29.41
ATOM	1085	CG	LYS	A	152	5.626	1.158	47.393	1.000	38.23
ATOM	1086	CD	LYS	A	152	4.469	2.111	47.631	1.000	43.28
ATOM	1087	CE	LYS	A	152	4.900	3.566	47.538	1.000	49.33
ATOM	1088	NZ	LYS	A	152	3.834	4.403	46.910	1.000	76.06
ATOM	1089	C	LYS	A	152	3.528	-1.344	45.298	1.000	30.77
ATOM	1090	O	LYS	A	152	3.227	-1.024	44.149	1.000	33.84
ATOM	1091	N	CYS	A	153	3.648	-2.611	45.697	1.000	27.03

**FIGURE 27**

ATOM	1092	CA	CYS	A	153	3.476	-3.698	44.729	1.000	27.81
ATOM	1093	CB	CYS	A	153	4.776	-3.878	43.946	1.000	27.07
ATOM	1094	SG	CYS	A	153	4.790	-5.091	42.611	1.000	26.17
ATOM	1095	C	CYS	A	153	3.064	-4.986	45.420	1.000	26.82
ATOM	1096	O	CYS	A	153	3.553	-5.324	46.490	1.000	27.44
ATOM	1097	N	ASP	A	154	2.155	-5.742	44.804	1.000	34.85
ATOM	1098	CA	ASP	A	154	1.828	-7.062	45.322	1.000	37.76
ATOM	1099	CB	ASP	A	154	0.584	-7.638	44.645	1.000	29.89
ATOM	1100	CG	ASP	A	154	0.099	-8.911	45.316	1.000	34.93
ATOM	1101	OD1	ASP	A	154	-0.148	-9.919	44.627	1.000	38.18
ATOM	1102	OD2	ASP	A	154	-0.042	-8.917	46.557	1.000	47.22
ATOM	1103	C	ASP	A	154	3.010	-8.017	45.130	1.000	40.61
ATOM	1104	O	ASP	A	154	3.825	-7.877	44.216	1.000	30.25
ATOM	1105	N	HIS	A	155	3.097	-8.993	46.020	1.000	32.47
ATOM	1106	CA	HIS	A	155	4.072	-10.070	45.914	1.000	30.20
ATOM	1107	CB	HIS	A	155	4.312	-10.721	47.282	1.000	28.22
ATOM	1108	CG	HIS	A	155	5.365	-11.788	47.244	1.000	30.06
ATOM	1109	ND1	HIS	A	155	6.655	-11.595	47.686	1.000	32.04
ATOM	1110	CE1	HIS	A	155	7.357	-12.700	47.514	1.000	31.07
ATOM	1111	NE2	HIS	A	155	6.557	-13.606	46.980	1.000	35.21
ATOM	1112	CD2	HIS	A	155	5.311	-13.064	46.793	1.000	27.75
ATOM	1113	C	HIS	A	155	3.531	-11.053	44.879	1.000	30.27
ATOM	1114	O	HIS	A	155	2.745	-11.922	45.253	1.000	34.64
ATOM	1115	N	TYR	A	156	3.914	-10.897	43.613	1.000	24.90
ATOM	1116	CA	TYR	A	156	3.234	-11.590	42.521	1.000	22.68
ATOM	1117	CB	TYR	A	156	3.093	-10.621	41.340	1.000	22.68
ATOM	1118	CG	TYR	A	156	4.387	-10.046	40.818	1.000	21.15
ATOM	1119	CD1	TYR	A	156	5.101	-10.741	39.844	1.000	20.48
ATOM	1120	CE1	TYR	A	156	6.286	-10.236	39.348	1.000	18.15
ATOM	1121	CZ	TYR	A	156	6.755	-9.037	39.824	1.000	18.02
ATOM	1122	OH	TYR	A	156	7.933	-8.545	39.322	1.000	19.23
ATOM	1123	CE2	TYR	A	156	6.070	-8.320	40.786	1.000	19.56
ATOM	1124	CD2	TYR	A	156	4.883	-8.836	41.274	1.000	17.13
ATOM	1125	C	TYR	A	156	3.905	-12.870	42.063	1.000	25.52
ATOM	1126	O	TYR	A	156	3.550	-13.447	41.027	1.000	22.83
ATOM	1127	N	TRP	A	157	4.881	-13.356	42.825	1.000	33.11
ATOM	1128	CA	TRP	A	157	5.531	-14.623	42.504	1.000	31.82
ATOM	1129	CB	TRP	A	157	6.985	-14.383	42.092	1.000	32.50
ATOM	1130	CG	TRP	A	157	7.827	-13.805	43.197	1.000	31.35
ATOM	1131	CD1	TRP	A	157	8.582	-14.486	44.110	1.000	27.90
ATOM	1132	NE1	TRP	A	157	9.208	-13.611	44.960	1.000	24.08
ATOM	1133	CE2	TRP	A	157	8.866	-12.330	44.607	1.000	25.03
ATOM	1134	CD2	TRP	A	157	8.000	-12.414	43.503	1.000	28.13
ATOM	1135	CE3	TRP	A	157	7.500	-11.231	42.944	1.000	23.89
ATOM	1136	CZ3	TRP	A	157	7.880	-10.030	43.502	1.000	22.95
ATOM	1137	CH2	TRP	A	157	8.743	-9.975	44.602	1.000	25.46
ATOM	1138	CZ2	TRP	A	157	9.251	-11.113	45.172	1.000	27.53
ATOM	1139	C	TRP	A	157	5.490	-15.556	43.706	1.000	28.64
ATOM	1140	O	TRP	A	157	5.361	-15.056	44.828	1.000	33.96
ATOM	1141	N	PRO	A	158	5.623	-16.858	43.503	1.000	30.31
ATOM	1142	CA	PRO	A	158	5.666	-17.787	44.640	1.000	33.91
ATOM	1143	CB	PRO	A	158	5.597	-19.170	44.009	1.000	24.17

FIGURE 28



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Three Dimensional Coordinates of HPTPbeta

ATOM	1144	CG	PRO	A	158	5.988	-18.987	42.583	1.000	30.62
ATOM	1145	CD	PRO	A	158	5.757	-17.553	42.215	1.000	28.57
ATOM	1146	C	PRO	A	158	6.990	-17.602	45.391	1.000	42.64
ATOM	1147	O	PRO	A	158	8.051	-17.797	44.790	1.000	41.28
ATOM	1148	N	ALA	A	159	6.903	-17.227	46.657	1.000	44.31
ATOM	1149	CA	ALA	A	159	8.044	-16.897	47.500	1.000	52.40
ATOM	1150	CB	ALA	A	159	7.567	-16.083	48.701	1.000	39.50
ATOM	1151	C	ALA	A	159	8.838	-18.094	48.000	1.000	52.74
ATOM	1152	O	ALA	A	159	9.922	-17.935	48.572	1.000	69.24
ATOM	1153	N	ASP	A	160	8.338	-19.307	47.809	1.000	51.47
ATOM	1154	CA	ASP	A	160	9.110	-20.487	48.190	1.000	60.84
ATOM	1155	CB	ASP	A	160	8.266	-21.507	48.945	1.000	68.39
ATOM	1156	CG	ASP	A	160	7.989	-21.175	50.394	1.000	75.02
ATOM	1157	OD1	ASP	A	160	8.838	-20.519	51.035	1.000	88.56
ATOM	1158	OD2	ASP	A	160	6.913	-21.574	50.891	1.000	76.88
ATOM	1159	C	ASP	A	160	9.663	-21.134	46.924	1.000	53.11
ATOM	1160	O	ASP	A	160	9.452	-20.618	45.827	1.000	52.42
ATOM	1161	N	GLN	A	161	10.327	-22.273	47.064	1.000	49.61
ATOM	1162	CA	GLN	A	161	10.738	-23.062	45.911	1.000	54.59
ATOM	1163	CB	GLN	A	161	11.818	-24.073	46.306	1.000	56.30
ATOM	1164	CG	GLN	A	161	13.239	-23.547	46.201	1.000	55.95
ATOM	1165	CD	GLN	A	161	13.450	-22.701	44.959	1.000	53.24
ATOM	1166	OE1	GLN	A	161	13.368	-23.208	43.842	1.000	49.06
ATOM	1167	NE2	GLN	A	161	13.724	-21.415	45.153	1.000	41.80
ATOM	1168	C	GLN	A	161	9.543	-23.794	45.301	1.000	51.44
ATOM	1169	O	GLN	A	161	9.666	-24.493	44.295	1.000	52.78
ATOM	1170	N	ASP	A	162	8.381	-23.641	45.922	1.000	45.89
ATOM	1171	CA	ASP	A	162	7.149	-24.258	45.482	1.000	51.10
ATOM	1172	CB	ASP	A	162	6.101	-24.204	46.603	1.000	57.35
ATOM	1173	CG	ASP	A	162	5.884	-22.779	47.078	1.000	65.40
ATOM	1174	OD1	ASP	A	162	6.698	-21.916	46.685	1.000	69.28
ATOM	1175	OD2	ASP	A	162	4.914	-22.539	47.823	1.000	75.26
ATOM	1176	C	ASP	A	162	6.603	-23.596	44.219	1.000	49.85
ATOM	1177	O	ASP	A	162	7.291	-22.878	43.496	1.000	53.02
ATOM	1178	N	SER	A	163	5.331	-23.884	43.972	1.000	41.47
ATOM	1179	CA	SER	A	163	4.634	-23.472	42.768	1.000	32.87
ATOM	1180	CB	SER	A	163	4.486	-24.685	41.840	1.000	32.47
ATOM	1181	OG	SER	A	163	3.800	-25.721	42.529	1.000	31.33
ATOM	1182	C	SER	A	163	3.257	-22.894	43.072	1.000	32.86
ATOM	1183	O	SER	A	163	2.679	-23.132	44.135	1.000	30.48
ATOM	1184	N	LEU	A	164	2.739	-22.138	42.115	1.000	28.27
ATOM	1185	CA	LEU	A	164	1.390	-21.603	42.172	1.000	23.14
ATOM	1186	CB	LEU	A	164	1.320	-20.222	42.813	1.000	23.52
ATOM	1187	CG	LEU	A	164	1.908	-20.041	44.206	1.000	37.76
ATOM	1188	CD1	LEU	A	164	1.918	-18.560	44.569	1.000	36.50
ATOM	1189	CD2	LEU	A	164	1.141	-20.859	45.236	1.000	38.57
ATOM	1190	C	LEU	A	164	0.833	-21.459	40.757	1.000	28.03
ATOM	1191	O	LEU	A	164	1.613	-21.308	39.816	1.000	24.57
ATOM	1192	N	TYR	A	165	-0.492	-21.480	40.677	1.000	28.64
ATOM	1193	CA	TYR	A	165	-1.157	-21.136	39.432	1.000	28.93
ATOM	1194	CB	TYR	A	165	-2.517	-21.817	39.316	1.000	22.72
ATOM	1195	CG	TYR	A	165	-2.482	-23.276	38.942	1.000	18.62

**FIGURE 29**

ATOM	1196	CD1	TYR	A	165	-2.328	-24.260	39.911	1.000	25.83
ATOM	1197	CE1	TYR	A	165	-2.294	-25.603	39.581	1.000	25.94
ATOM	1198	CZ	TYR	A	165	-2.418	-25.987	38.262	1.000	26.30
ATOM	1199	OH	TYR	A	165	-2.393	-27.324	37.926	1.000	27.99
ATOM	1200	CE2	TYR	A	165	-2.577	-25.035	37.287	1.000	21.27
ATOM	1201	CD2	TYR	A	165	-2.606	-23.693	37.627	1.000	22.96
ATOM	1202	C	TYR	A	165	-1.349	-19.620	39.364	1.000	30.51
ATOM	1203	O	TYR	A	165	-1.633	-19.005	40.383	1.000	27.58
ATOM	1204	N	TYR	A	166	-1.205	-19.047	38.185	1.000	24.74
ATOM	1205	CA	TYR	A	166	-1.612	-17.675	37.914	1.000	24.22
ATOM	1206	CB	TYR	A	166	-0.422	-16.731	37.786	1.000	24.27
ATOM	1207	CG	TYR	A	166	0.394	-16.584	39.057	1.000	25.75
ATOM	1208	CD1	TYR	A	166	0.075	-15.624	40.015	1.000	21.51
ATOM	1209	CE1	TYR	A	166	0.820	-15.483	41.177	1.000	23.56
ATOM	1210	CZ	TYR	A	166	1.899	-16.316	41.394	1.000	24.64
ATOM	1211	OH	TYR	A	166	2.646	-16.197	42.543	1.000	25.20
ATOM	1212	CE2	TYR	A	166	2.244	-17.280	40.464	1.000	21.31
ATOM	1213	CD2	TYR	A	166	1.492	-17.401	39.306	1.000	28.88
ATOM	1214	C	TYR	A	166	-2.449	-17.749	36.642	1.000	28.89
ATOM	1215	O	TYR	A	166	-1.923	-17.886	35.535	1.000	28.35
ATOM	1216	N	GLY	A	167	-3.775	-17.705	36.793	1.000	30.71
ATOM	1217	CA	GLY	A	167	-4.586	-17.861	35.583	1.000	35.47
ATOM	1218	C	GLY	A	167	-4.383	-19.271	35.038	1.000	34.48
ATOM	1219	O	GLY	A	167	-4.521	-20.213	35.826	1.000	29.66
ATOM	1220	N	ASP	A	168	-4.072	-19.391	33.760	1.000	25.86
ATOM	1221	CA	ASP	A	168	-3.860	-20.665	33.082	1.000	23.07
ATOM	1222	CB	ASP	A	168	-4.216	-20.560	31.601	1.000	22.17
ATOM	1223	CG	ASP	A	168	-5.719	-20.526	31.403	1.000	30.38
ATOM	1224	OD1	ASP	A	168	-6.422	-20.536	32.432	1.000	44.55
ATOM	1225	OD2	ASP	A	168	-6.178	-20.501	30.246	1.000	52.57
ATOM	1226	C	ASP	A	168	-2.411	-21.110	33.207	1.000	28.96
ATOM	1227	O	ASP	A	168	-1.997	-22.187	32.785	1.000	35.10
ATOM	1228	N	LEU	A	169	-1.617	-20.229	33.816	1.000	33.00
ATOM	1229	CA	LEU	A	169	-0.197	-20.558	33.927	1.000	32.77
ATOM	1230	CB	LEU	A	169	0.652	-19.326	33.571	1.000	25.71
ATOM	1231	CG	LEU	A	169	0.116	-18.558	32.353	1.000	24.37
ATOM	1232	CD1	LEU	A	169	0.491	-17.088	32.434	1.000	31.21
ATOM	1233	CD2	LEU	A	169	0.634	-19.191	31.076	1.000	35.13
ATOM	1234	C	LEU	A	169	0.190	-21.063	35.306	1.000	20.10
ATOM	1235	O	LEU	A	169	-0.332	-20.698	36.352	1.000	25.85
ATOM	1236	N	ILE	A	170	1.186	-21.938	35.253	1.000	23.95
ATOM	1237	CA	ILE	A	170	1.792	-22.432	36.482	1.000	30.46
ATOM	1238	CB	ILE	A	170	1.748	-23.965	36.556	1.000	29.06
ATOM	1239	CG1	ILE	A	170	2.820	-24.536	37.485	1.000	31.61
ATOM	1240	CD1	ILE	A	170	2.381	-24.474	38.935	1.000	36.97
ATOM	1241	CG2	ILE	A	170	1.824	-24.585	35.175	1.000	61.97
ATOM	1242	C	ILE	A	170	3.229	-21.924	36.541	1.000	27.52
ATOM	1243	O	ILE	A	170	3.980	-22.051	35.579	1.000	28.50
ATOM	1244	N	LEU	A	171	3.581	-21.324	37.663	1.000	33.56
ATOM	1245	CA	LEU	A	171	4.899	-20.758	37.889	1.000	23.37
ATOM	1246	CB	LEU	A	171	4.752	-19.251	38.120	1.000	35.18
ATOM	1247	CG	LEU	A	171	5.997	-18.414	37.823	1.000	43.60

**FIGURE 30**

ATOM	1248	CD1	LEU	A	171	5.642	-17.121	37.111	1.000	63.91
ATOM	1249	CD2	LEU	A	171	6.736	-18.133	39.121	1.000	45.12
ATOM	1250	C	LEU	A	171	5.591	-21.435	39.061	1.000	27.57
ATOM	1251	O	LEU	A	171	5.001	-21.717	40.109	1.000	26.54
ATOM	1252	N	GLN	A	172	6.879	-21.712	38.886	1.000	33.32
ATOM	1253	CA	GLN	A	172	7.659	-22.398	39.914	1.000	32.37
ATOM	1254	CB	GLN	A	172	7.941	-23.825	39.432	1.000	29.07
ATOM	1255	CG	GLN	A	172	8.747	-24.687	40.384	1.000	30.68
ATOM	1256	CD	GLN	A	172	9.108	-26.026	39.763	1.000	33.95
ATOM	1257	OE1	GLN	A	172	9.084	-26.176	38.543	1.000	34.24
ATOM	1258	NE2	GLN	A	172	9.436	-27.007	40.589	1.000	42.96
ATOM	1259	C	GLN	A	172	8.953	-21.663	40.192	1.000	26.84
ATOM	1260	O	GLN	A	172	9.698	-21.353	39.268	1.000	27.43
ATOM	1261	N	MET	A	173	9.304	-21.339	41.437	1.000	32.50
ATOM	1262	CA	MET	A	173	10.597	-20.678	41.595	1.000	30.97
ATOM	1263	CB	MET	A	173	10.693	-19.860	42.883	1.000	29.94
ATOM	1264	CG	MET	A	173	12.132	-19.396	43.134	1.000	34.61
ATOM	1265	SD	MET	A	173	12.197	-18.091	44.380	1.000	57.02
ATOM	1266	CE	MET	A	173	12.001	-19.065	45.860	1.000	24.26
ATOM	1267	C	MET	A	173	11.719	-21.715	41.612	1.000	36.84
ATOM	1268	O	MET	A	173	11.649	-22.640	42.427	1.000	50.73
ATOM	1269	N	LEU	A	174	12.703	-21.541	40.741	1.000	29.04
ATOM	1270	CA	LEU	A	174	13.805	-22.491	40.663	1.000	33.35
ATOM	1271	CB	LEU	A	174	14.272	-22.638	39.215	1.000	28.88
ATOM	1272	CG	LEU	A	174	13.322	-23.341	38.253	1.000	37.78
ATOM	1273	CD1	LEU	A	174	13.953	-23.473	36.869	1.000	27.40
ATOM	1274	CD2	LEU	A	174	12.907	-24.710	38.769	1.000	40.70
ATOM	1275	C	LEU	A	174	14.990	-22.089	41.532	1.000	40.05
ATOM	1276	O	LEU	A	174	15.816	-22.939	41.869	1.000	47.76
ATOM	1277	N	SER	A	175	15.096	-20.812	41.884	1.000	40.28
ATOM	1278	CA	SER	A	175	16.267	-20.331	42.611	1.000	36.37
ATOM	1279	CB	SER	A	175	17.521	-20.496	41.750	1.000	41.94
ATOM	1280	OG	SER	A	175	17.651	-19.439	40.814	1.000	42.50
ATOM	1281	C	SER	A	175	16.120	-18.877	43.028	1.000	33.27
ATOM	1282	O	SER	A	175	15.231	-18.146	42.597	1.000	31.30
ATOM	1283	N	GLU	A	176	17.016	-18.426	43.908	1.000	21.04
ATOM	1284	CA	GLU	A	176	16.840	-17.086	44.444	1.000	28.91
ATOM	1285	CB	GLU	A	176	15.621	-17.013	45.373	1.000	31.33
ATOM	1286	CG	GLU	A	176	15.576	-15.684	46.108	1.000	33.37
ATOM	1287	CD	GLU	A	176	14.525	-15.568	47.187	1.000	40.95
ATOM	1288	OE1	GLU	A	176	14.831	-15.906	48.350	1.000	66.50
ATOM	1289	OE2	GLU	A	176	13.390	-15.121	46.900	1.000	42.21
ATOM	1290	C	GLU	A	176	18.075	-16.657	45.225	1.000	35.17
ATOM	1291	O	GLU	A	176	18.353	-17.212	46.288	1.000	48.02
ATOM	1292	N	SER	A	177	18.794	-15.685	44.683	1.000	30.91
ATOM	1293	CA	SER	A	177	20.036	-15.232	45.282	1.000	28.08
ATOM	1294	CB	SER	A	177	21.182	-15.290	44.263	1.000	26.33
ATOM	1295	OG	SER	A	177	21.340	-16.639	43.844	1.000	59.53
ATOM	1296	C	SER	A	177	19.908	-13.811	45.804	1.000	28.71
ATOM	1297	O	SER	A	177	19.678	-12.900	45.008	1.000	21.80
ATOM	1298	N	VAL	A	178	20.078	-13.672	47.112	1.000	28.75
ATOM	1299	CA	VAL	A	178	20.081	-12.360	47.739	1.000	33.94

FIGURE 31

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Three Dimensional Coordinates of HPTPbeta

ATOM	1300	CB	VAL	A	178	19.564	-12.385	49.185	1.000	36.90
ATOM	1301	CG1	VAL	A	178	19.530	-10.966	49.740	1.000	26.11
ATOM	1302	CG2	VAL	A	178	18.191	-13.032	49.252	1.000	38.71
ATOM	1303	C	VAL	A	178	21.492	-11.768	47.753	1.000	37.69
ATOM	1304	O	VAL	A	178	22.404	-12.390	48.298	1.000	42.82
ATOM	1305	N	LEU	A	179	21.605	-10.603	47.149	1.000	36.54
ATOM	1306	CA	LEU	A	179	22.772	-9.738	47.125	1.000	37.72
ATOM	1307	CB	LEU	A	179	23.086	-9.250	45.709	1.000	40.59
ATOM	1308	CG	LEU	A	179	23.817	-10.254	44.811	1.000	42.47
ATOM	1309	CD1	LEU	A	179	24.258	-11.454	45.634	1.000	49.20
ATOM	1310	CD2	LEU	A	179	22.942	-10.672	43.638	1.000	27.98
ATOM	1311	C	LEU	A	179	22.522	-8.547	48.041	1.000	36.64
ATOM	1312	O	LEU	A	179	21.375	-8.338	48.461	1.000	39.97
ATOM	1313	N	PRO	A	180	23.523	-7.750	48.377	1.000	35.66
ATOM	1314	CA	PRO	A	180	23.219	-6.610	49.254	1.000	37.77
ATOM	1315	CB	PRO	A	180	24.584	-5.934	49.447	1.000	38.49
ATOM	1316	CG	PRO	A	180	25.553	-7.049	49.201	1.000	37.57
ATOM	1317	CD	PRO	A	180	24.950	-7.802	48.031	1.000	30.63
ATOM	1318	C	PRO	A	180	22.228	-5.644	48.617	1.000	33.86
ATOM	1319	O	PRO	A	180	21.382	-5.100	49.338	1.000	33.02
ATOM	1320	N	GLU	A	181	22.328	-5.430	47.303	1.000	29.48
ATOM	1321	CA	GLU	A	181	21.557	-4.357	46.678	1.000	30.49
ATOM	1322	CB	GLU	A	181	22.501	-3.428	45.911	1.000	33.66
ATOM	1323	CG	GLU	A	181	23.039	-2.275	46.752	1.000	42.87
ATOM	1324	CD	GLU	A	181	24.282	-1.678	46.120	1.000	51.54
ATOM	1325	OE1	GLU	A	181	25.233	-2.443	45.850	1.000	75.46
ATOM	1326	OE2	GLU	A	181	24.303	-0.455	45.890	1.000	75.08
ATOM	1327	C	GLU	A	181	20.471	-4.855	45.741	1.000	31.78
ATOM	1328	O	GLU	A	181	19.651	-4.082	45.245	1.000	30.15
ATOM	1329	N	TRP	A	182	20.469	-6.158	45.486	1.000	30.83
ATOM	1330	CA	TRP	A	182	19.412	-6.733	44.667	1.000	29.29
ATOM	1331	CB	TRP	A	182	19.582	-6.376	43.197	1.000	28.58
ATOM	1332	CG	TRP	A	182	20.858	-6.827	42.567	1.000	33.11
ATOM	1333	CD1	TRP	A	182	21.167	-8.066	42.078	1.000	32.78
ATOM	1334	NE1	TRP	A	182	22.451	-8.067	41.577	1.000	29.50
ATOM	1335	CE2	TRP	A	182	22.991	-6.819	41.738	1.000	29.38
ATOM	1336	CD2	TRP	A	182	22.021	-6.010	42.354	1.000	28.84
ATOM	1337	CE3	TRP	A	182	22.313	-4.676	42.637	1.000	26.83
ATOM	1338	CZ3	TRP	A	182	23.561	-4.198	42.293	1.000	27.97
ATOM	1339	CH2	TRP	A	182	24.508	-5.021	41.679	1.000	32.03
ATOM	1340	CZ2	TRP	A	182	24.250	-6.333	41.391	1.000	35.86
ATOM	1341	C	TRP	A	182	19.363	-8.248	44.842	1.000	29.75
ATOM	1342	O	TRP	A	182	20.270	-8.854	45.409	1.000	29.69
ATOM	1343	N	THR	A	183	18.273	-8.804	44.338	1.000	23.29
ATOM	1344	CA	THR	A	183	17.984	-10.221	44.437	1.000	22.15
ATOM	1345	CB	THR	A	183	16.812	-10.506	45.397	1.000	23.41
ATOM	1346	OG1	THR	A	183	17.155	-10.024	46.694	1.000	26.52
ATOM	1347	CG2	THR	A	183	16.567	-12.004	45.501	1.000	25.62
ATOM	1348	C	THR	A	183	17.630	-10.771	43.063	1.000	22.12
ATOM	1349	O	THR	A	183	16.748	-10.228	42.399	1.000	27.35
ATOM	1350	N	ILE	A	184	18.333	-11.820	42.662	1.000	22.30
ATOM	1351	CA	ILE	A	184	18.088	-12.437	41.360	1.000	23.94

**FIGURE 32**

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ATOM	1352	CB	ILE	A	184	19.396	-12.675	40.592	1.000	25.30
ATOM	1353	CG1	ILE	A	184	20.199	-11.396	40.326	1.000	22.21
ATOM	1354	CD1	ILE	A	184	21.601	-11.696	39.831	1.000	22.92
ATOM	1355	CG2	ILE	A	184	19.170	-13.392	39.270	1.000	24.72
ATOM	1356	C	ILE	A	184	17.317	-13.730	41.564	1.000	27.42
ATOM	1357	O	ILE	A	184	17.775	-14.657	42.235	1.000	27.72
ATOM	1358	N	ARG	A	185	16.108	-13.816	41.000	1.000	24.23
ATOM	1359	CA	ARG	A	185	15.404	-15.097	41.120	1.000	17.59
ATOM	1360	CB	ARG	A	185	14.007	-14.943	41.706	1.000	21.98
ATOM	1361	CG	ARG	A	185	13.946	-14.608	43.191	1.000	30.13
ATOM	1362	CD	ARG	A	185	12.698	-13.806	43.506	1.000	29.20
ATOM	1363	NE	ARG	A	185	12.608	-13.366	44.885	1.000	25.63
ATOM	1364	CZ	ARG	A	185	12.669	-12.112	45.309	1.000	25.06
ATOM	1365	NH1	ARG	A	185	12.832	-11.112	44.455	1.000	24.55
ATOM	1366	NH2	ARG	A	185	12.570	-11.850	46.607	1.000	24.44
ATOM	1367	C	ARG	A	185	15.324	-15.729	39.740	1.000	18.32
ATOM	1368	O	ARG	A	185	15.468	-15.034	38.737	1.000	27.89
ATOM	1369	N	GLU	A	186	15.083	-17.033	39.702	1.000	27.54
ATOM	1370	CA	GLU	A	186	14.806	-17.688	38.433	1.000	33.52
ATOM	1371	CB	GLU	A	186	15.931	-18.640	38.027	1.000	37.26
ATOM	1372	CG	GLU	A	186	15.709	-19.229	36.633	1.000	44.30
ATOM	1373	CD	GLU	A	186	16.999	-19.785	36.063	1.000	50.45
ATOM	1374	OE1	GLU	A	186	16.974	-20.303	34.930	1.000	68.14
ATOM	1375	OE2	GLU	A	186	18.035	-19.694	36.755	1.000	45.57
ATOM	1376	C	GLU	A	186	13.496	-18.471	38.501	1.000	35.05
ATOM	1377	O	GLU	A	186	13.271	-19.227	39.448	1.000	27.73
ATOM	1378	N	PHE	A	187	12.649	-18.294	37.488	1.000	21.89
ATOM	1379	CA	PHE	A	187	11.434	-19.091	37.427	1.000	24.39
ATOM	1380	CB	PHE	A	187	10.188	-18.203	37.533	1.000	26.13
ATOM	1381	CG	PHE	A	187	10.245	-17.205	38.663	1.000	34.20
ATOM	1382	CD1	PHE	A	187	10.669	-15.907	38.444	1.000	31.66
ATOM	1383	CE1	PHE	A	187	10.727	-14.979	39.465	1.000	27.66
ATOM	1384	CZ	PHE	A	187	10.352	-15.353	40.737	1.000	25.23
ATOM	1385	CE2	PHE	A	187	9.926	-16.645	40.980	1.000	26.99
ATOM	1386	CD2	PHE	A	187	9.875	-17.565	39.952	1.000	33.63
ATOM	1387	C	PHE	A	187	11.345	-19.910	36.138	1.000	22.76
ATOM	1388	O	PHE	A	187	11.934	-19.600	35.113	1.000	22.84
ATOM	1389	N	LYS	A	188	10.568	-20.964	36.254	1.000	24.79
ATOM	1390	CA	LYS	A	188	10.099	-21.834	35.200	1.000	26.88
ATOM	1391	CB	LYS	A	188	10.353	-23.309	35.515	1.000	29.96
ATOM	1392	CG	LYS	A	188	10.069	-24.234	34.340	1.000	40.94
ATOM	1393	CD	LYS	A	188	10.185	-25.699	34.726	1.000	36.57
ATOM	1394	CE	LYS	A	188	8.857	-26.229	35.244	1.000	36.18
ATOM	1395	NZ	LYS	A	188	9.078	-27.265	36.298	1.000	55.70
ATOM	1396	C	LYS	A	188	8.602	-21.591	35.044	1.000	24.40
ATOM	1397	O	LYS	A	188	7.885	-21.601	36.049	1.000	27.61
ATOM	1398	N	ILE	A	189	8.141	-21.364	33.822	1.000	23.95
ATOM	1399	CA	ILE	A	189	6.710	-21.109	33.659	1.000	28.81
ATOM	1400	CB	ILE	A	189	6.449	-19.639	33.313	1.000	35.20
ATOM	1401	CG1	ILE	A	189	4.972	-19.306	33.080	1.000	43.59
ATOM	1402	CD1	ILE	A	189	4.692	-17.815	33.127	1.000	51.14
ATOM	1403	CG2	ILE	A	189	7.290	-19.208	32.121	1.000	19.65

**FIGURE 33**

ATOM	1404	C	ILE	A	189	6.141	-22.040	32.594	1.000	30.63
ATOM	1405	O	ILE	A	189	6.820	-22.278	31.600	1.000	34.60
ATOM	1406	N	CYS	A	190	4.945	-22.551	32.839	1.000	36.44
ATOM	1407	CA	CYS	A	190	4.195	-23.466	32.001	1.000	38.23
ATOM	1408	CB	CYS	A	190	3.935	-24.832	32.645	1.000	36.83
ATOM	1409	SG	CYS	A	190	5.333	-25.621	33.465	1.000	54.28
ATOM	1410	C	CYS	A	190	2.836	-22.854	31.647	1.000	40.07
ATOM	1411	O	CYS	A	190	2.035	-22.528	32.524	1.000	34.54
ATOM	1412	N	GLY	A	191	2.596	-22.714	30.348	1.000	38.67
ATOM	1413	CA	GLY	A	191	1.317	-22.192	29.891	1.000	47.19
ATOM	1414	C	GLY	A	191	0.665	-23.168	28.937	1.000	57.83
ATOM	1415	O	GLY	A	191	1.108	-24.313	28.810	1.000	57.59
ATOM	1416	N	GLU	A	192	-0.394	-22.733	28.252	1.000	68.94
ATOM	1417	CA	GLU	A	192	-0.950	-23.669	27.264	1.000	77.08
ATOM	1418	CB	GLU	A	192	-2.249	-23.139	26.671	1.000	79.72
ATOM	1419	CG	GLU	A	192	-3.488	-23.931	27.082	1.000	83.44
ATOM	1420	CD	GLU	A	192	-4.763	-23.113	27.103	1.000	88.99
ATOM	1421	OE1	GLU	A	192	-4.760	-21.996	27.669	1.000	97.81
ATOM	1422	OE2	GLU	A	192	-5.784	-23.582	26.555	1.000	83.85
ATOM	1423	C	GLU	A	192	0.137	-23.932	26.222	1.000	79.08
ATOM	1424	O	GLU	A	192	0.449	-23.046	25.419	1.000	84.98
ATOM	1425	N	GLU	A	193	0.712	-25.136	26.276	1.000	80.23
ATOM	1426	CA	GLU	A	193	1.810	-25.537	25.407	1.000	88.15
ATOM	1427	CB	GLU	A	193	1.859	-27.061	25.268	1.000	82.57
ATOM	1428	CG	GLU	A	193	2.981	-27.559	24.373	1.000	74.69
ATOM	1429	CD	GLU	A	193	4.340	-27.361	25.023	1.000	75.38
ATOM	1430	OE1	GLU	A	193	4.581	-27.990	26.075	1.000	64.29
ATOM	1431	OE2	GLU	A	193	5.153	-26.581	24.488	1.000	79.60
ATOM	1432	C	GLU	A	193	1.682	-24.896	24.026	1.000	100.09
ATOM	1433	O	GLU	A	193	0.956	-25.403	23.166	1.000	118.96
ATOM	1434	N	GLN	A	194	2.383	-23.782	23.814	1.000	102.10
ATOM	1435	CA	GLN	A	194	2.277	-23.101	22.520	1.000	107.47
ATOM	1436	CB	GLN	A	194	1.451	-21.819	22.686	1.000	110.48
ATOM	1437	CG	GLN	A	194	0.039	-22.092	23.245	1.000	111.93
ATOM	1438	CD	GLN	A	194	-0.952	-20.989	22.858	1.000	112.96
ATOM	1439	OE1	GLN	A	194	-0.959	-20.485	21.724	1.000	119.77
ATOM	1440	NE2	GLN	A	194	-1.812	-20.629	23.805	1.000	105.14
ATOM	1441	C	GLN	A	194	3.653	-22.834	21.928	1.000	110.55
ATOM	1442	O	GLN	A	194	4.374	-23.775	21.570	1.000	118.12
ATOM	1443	N	LEU	A	195	4.067	-21.573	21.796	1.000	108.99
ATOM	1444	CA	LEU	A	195	5.409	-21.363	21.238	1.000	106.04
ATOM	1445	CB	LEU	A	195	5.601	-19.930	20.752	1.000	103.44
ATOM	1446	CG	LEU	A	195	6.025	-19.764	19.285	1.000	101.76
ATOM	1447	CD1	LEU	A	195	6.636	-18.390	19.041	1.000	93.51
ATOM	1448	CD2	LEU	A	195	7.000	-20.865	18.871	1.000	83.67
ATOM	1449	C	LEU	A	195	6.462	-21.736	22.276	1.000	109.72
ATOM	1450	O	LEU	A	195	7.662	-21.740	21.977	1.000	128.83
ATOM	1451	N	ASP	A	196	6.020	-22.054	23.495	1.000	104.75
ATOM	1452	CA	ASP	A	196	6.956	-22.505	24.521	1.000	97.46
ATOM	1453	CB	ASP	A	196	7.139	-21.463	25.616	1.000	94.37
ATOM	1454	CG	ASP	A	196	6.470	-20.133	25.358	1.000	89.89
ATOM	1455	OD1	ASP	A	196	5.236	-20.089	25.182	1.000	80.93

**FIGURE 34**

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ATOM	1456	OD2	ASP	A	196	7.206	-19.119	25.348	1.000	73.17
ATOM	1457	C	ASP	A	196	6.498	-23.822	25.150	1.000	96.72
ATOM	1458	O	ASP	A	196	5.391	-24.300	24.896	1.000	103.69
ATOM	1459	N	ALA	A	197	7.366	-24.390	25.976	1.000	95.34
ATOM	1460	CA	ALA	A	197	7.113	-25.628	26.703	1.000	92.76
ATOM	1461	CB	ALA	A	197	7.661	-26.824	25.949	1.000	80.95
ATOM	1462	C	ALA	A	197	7.715	-25.535	28.106	1.000	92.67
ATOM	1463	O	ALA	A	197	6.986	-25.567	29.100	1.000	101.36
ATOM	1464	N	HIS	A	198	9.035	-25.410	28.190	1.000	90.04
ATOM	1465	CA	HIS	A	198	9.720	-25.190	29.464	1.000	83.32
ATOM	1466	CB	HIS	A	198	10.618	-26.370	29.813	1.000	84.18
ATOM	1467	CG	HIS	A	198	11.844	-26.074	30.617	1.000	84.25
ATOM	1468	ND1	HIS	A	198	11.839	-25.834	31.968	1.000	86.44
ATOM	1469	CE1	HIS	A	198	13.071	-25.609	32.389	1.000	85.15
ATOM	1470	NE2	HIS	A	198	13.884	-25.681	31.348	1.000	81.36
ATOM	1471	CD2	HIS	A	198	13.141	-25.969	30.232	1.000	81.88
ATOM	1472	C	HIS	A	198	10.489	-23.876	29.379	1.000	70.03
ATOM	1473	O	HIS	A	198	11.664	-23.784	29.023	1.000	64.25
ATOM	1474	N	ARG	A	199	9.790	-22.781	29.701	1.000	58.16
ATOM	1475	CA	ARG	A	199	10.431	-21.480	29.568	1.000	50.11
ATOM	1476	CB	ARG	A	199	9.498	-20.464	28.903	1.000	50.90
ATOM	1477	CG	ARG	A	199	10.292	-19.446	28.092	1.000	53.59
ATOM	1478	CD	ARG	A	199	9.616	-18.087	28.108	1.000	48.39
ATOM	1479	NE	ARG	A	199	8.377	-18.120	27.322	1.000	42.37
ATOM	1480	CZ	ARG	A	199	7.502	-17.120	27.427	1.000	43.29
ATOM	1481	NH1	ARG	A	199	7.751	-16.096	28.241	1.000	31.50
ATOM	1482	NH2	ARG	A	199	6.398	-17.186	26.709	1.000	24.97
ATOM	1483	C	ARG	A	199	10.900	-20.944	30.918	1.000	37.10
ATOM	1484	O	ARG	A	199	10.201	-21.106	31.914	1.000	28.73
ATOM	1485	N	LEU	A	200	12.079	-20.336	30.889	1.000	29.92
ATOM	1486	CA	LEU	A	200	12.757	-19.865	32.087	1.000	35.35
ATOM	1487	CB	LEU	A	200	14.196	-20.394	32.149	1.000	38.39
ATOM	1488	CG	LEU	A	200	14.295	-21.881	32.511	1.000	51.57
ATOM	1489	CD1	LEU	A	200	15.401	-22.134	33.523	1.000	73.84
ATOM	1490	CD2	LEU	A	200	12.963	-22.382	33.052	1.000	69.62
ATOM	1491	C	LEU	A	200	12.762	-18.343	32.153	1.000	31.71
ATOM	1492	O	LEU	A	200	13.040	-17.681	31.155	1.000	29.83
ATOM	1493	N	ILE	A	201	12.446	-17.820	33.333	1.000	23.61
ATOM	1494	CA	ILE	A	201	12.371	-16.376	33.510	1.000	23.62
ATOM	1495	CB	ILE	A	201	10.962	-15.892	33.903	1.000	25.57
ATOM	1496	CG1	ILE	A	201	9.858	-16.232	32.898	1.000	30.41
ATOM	1497	CD1	ILE	A	201	10.310	-16.192	31.459	1.000	26.58
ATOM	1498	CG2	ILE	A	201	10.964	-14.395	34.171	1.000	23.03
ATOM	1499	C	ILE	A	201	13.332	-15.933	34.604	1.000	22.99
ATOM	1500	O	ILE	A	201	13.382	-16.507	35.688	1.000	27.49
ATOM	1501	N	ARG	A	202	14.088	-14.886	34.299	1.000	19.58
ATOM	1502	CA	ARG	A	202	14.960	-14.324	35.320	1.000	17.66
ATOM	1503	CB	ARG	A	202	16.361	-14.091	34.768	1.000	25.08
ATOM	1504	CG	ARG	A	202	17.450	-14.797	35.562	1.000	39.27
ATOM	1505	CD	ARG	A	202	18.605	-15.183	34.654	1.000	48.88
ATOM	1506	NE	ARG	A	202	19.385	-16.289	35.220	1.000	55.89
ATOM	1507	CZ	ARG	A	202	19.961	-17.201	34.435	1.000	60.48

**FIGURE 35**

ATOM	1508	NH1	ARG	A	202	19.812	-17.100	33.119	1.000	50.30
ATOM	1509	NH2	ARG	A	202	20.666	-18.191	34.965	1.000	77.85
ATOM	1510	C	ARG	A	202	14.343	-13.023	35.826	1.000	22.83
ATOM	1511	O	ARG	A	202	13.885	-12.219	35.007	1.000	22.73
ATOM	1512	N	HIS	A	203	14.345	-12.858	37.136	1.000	18.38
ATOM	1513	CA	HIS	A	203	13.794	-11.690	37.815	1.000	21.09
ATOM	1514	CB	HIS	A	203	12.701	-12.145	38.770	1.000	22.13
ATOM	1515	CG	HIS	A	203	11.824	-11.117	39.389	1.000	24.48
ATOM	1516	ND1	HIS	A	203	12.146	-10.463	40.554	1.000	20.07
ATOM	1517	CE1	HIS	A	203	11.186	-9.616	40.875	1.000	23.08
ATOM	1518	NE2	HIS	A	203	10.240	-9.697	39.959	1.000	27.63
ATOM	1519	CD2	HIS	A	203	10.611	-10.629	39.022	1.000	25.25
ATOM	1520	C	HIS	A	203	14.894	-10.952	38.579	1.000	27.02
ATOM	1521	O	HIS	A	203	15.541	-11.548	39.447	1.000	18.53
ATOM	1522	N	PHE	A	204	15.086	-9.691	38.246	1.000	21.78
ATOM	1523	CA	PHE	A	204	16.068	-8.796	38.840	1.000	16.28
ATOM	1524	CB	PHE	A	204	16.891	-8.101	37.742	1.000	16.39
ATOM	1525	CG	PHE	A	204	17.526	-9.112	36.813	1.000	27.16
ATOM	1526	CD1	PHE	A	204	16.899	-9.466	35.632	1.000	16.95
ATOM	1527	CE1	PHE	A	204	17.476	-10.397	34.790	1.000	26.09
ATOM	1528	CZ	PHE	A	204	18.686	-10.979	35.123	1.000	31.27
ATOM	1529	CE2	PHE	A	204	19.326	-10.639	36.303	1.000	26.75
ATOM	1530	CD2	PHE	A	204	18.744	-9.699	37.136	1.000	28.81
ATOM	1531	C	PHE	A	204	15.378	-7.752	39.707	1.000	16.41
ATOM	1532	O	PHE	A	204	14.748	-6.809	39.223	1.000	24.46
ATOM	1533	N	HIS	A	205	15.514	-7.930	41.006	1.000	16.66
ATOM	1534	CA	HIS	A	205	14.879	-7.081	41.998	1.000	14.51
ATOM	1535	CB	HIS	A	205	14.118	-7.987	42.982	1.000	14.31
ATOM	1536	CG	HIS	A	205	13.201	-7.221	43.887	1.000	25.21
ATOM	1537	ND1	HIS	A	205	12.631	-7.784	45.009	1.000	24.28
ATOM	1538	CE1	HIS	A	205	11.882	-6.885	45.611	1.000	27.88
ATOM	1539	NE2	HIS	A	205	11.939	-5.756	44.927	1.000	24.25
ATOM	1540	CD2	HIS	A	205	12.761	-5.949	43.845	1.000	28.00
ATOM	1541	C	HIS	A	205	15.867	-6.211	42.764	1.000	26.42
ATOM	1542	O	HIS	A	205	16.535	-6.668	43.697	1.000	21.37
ATOM	1543	N	TYR	A	206	15.950	-4.954	42.359	1.000	25.43
ATOM	1544	CA	TYR	A	206	16.705	-3.918	43.045	1.000	26.77
ATOM	1545	CB	TYR	A	206	16.849	-2.707	42.142	1.000	30.54
ATOM	1546	CG	TYR	A	206	17.810	-1.643	42.603	1.000	30.50
ATOM	1547	CD1	TYR	A	206	19.177	-1.758	42.349	1.000	21.06
ATOM	1548	CE1	TYR	A	206	20.048	-0.774	42.779	1.000	26.02
ATOM	1549	CZ	TYR	A	206	19.551	0.320	43.457	1.000	28.32
ATOM	1550	OH	TYR	A	206	20.406	1.309	43.883	1.000	33.26
ATOM	1551	CE2	TYR	A	206	18.201	0.452	43.715	1.000	31.83
ATOM	1552	CD2	TYR	A	206	17.330	-0.534	43.289	1.000	30.09
ATOM	1553	C	TYR	A	206	15.978	-3.521	44.324	1.000	32.60
ATOM	1554	O	TYR	A	206	14.893	-2.942	44.266	1.000	27.05
ATOM	1555	N	THR	A	207	16.574	-3.858	45.460	1.000	30.86
ATOM	1556	CA	THR	A	207	15.870	-3.793	46.729	1.000	34.19
ATOM	1557	CB	THR	A	207	16.205	-5.071	47.535	1.000	35.60
ATOM	1558	OG1	THR	A	207	17.627	-5.263	47.486	1.000	37.52
ATOM	1559	CG2	THR	A	207	15.545	-6.290	46.917	1.000	40.16

FIGURE 36



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ATOM	1560	C	THR	A	207	16.214	-2.599	47.604	1.000	42.95
ATOM	1561	O	THR	A	207	15.790	-2.560	48.768	1.000	33.25
ATOM	1562	N	VAL	A	208	16.982	-1.633	47.105	1.000	38.87
ATOM	1563	CA	VAL	A	208	17.495	-0.587	47.986	1.000	42.20
ATOM	1564	CB	VAL	A	208	19.001	-0.829	48.254	1.000	38.89
ATOM	1565	CG1	VAL	A	208	19.208	-2.188	48.913	1.000	29.05
ATOM	1566	CG2	VAL	A	208	19.810	-0.734	46.973	1.000	32.10
ATOM	1567	C	VAL	A	208	17.304	0.826	47.464	1.000	41.85
ATOM	1568	O	VAL	A	208	18.055	1.725	47.850	1.000	40.55
ATOM	1569	N	TRP	A	209	16.329	1.095	46.602	1.000	38.83
ATOM	1570	CA	TRP	A	209	16.039	2.473	46.199	1.000	36.12
ATOM	1571	CB	TRP	A	209	15.037	2.480	45.053	1.000	31.43
ATOM	1572	CG	TRP	A	209	15.042	3.683	44.170	1.000	31.44
ATOM	1573	CD1	TRP	A	209	14.710	4.963	44.509	1.000	26.97
ATOM	1574	NE1	TRP	A	209	14.840	5.788	43.417	1.000	29.65
ATOM	1575	CE2	TRP	A	209	15.261	5.047	42.342	1.000	23.71
ATOM	1576	CD2	TRP	A	209	15.399	3.717	42.779	1.000	28.34
ATOM	1577	CE3	TRP	A	209	15.821	2.749	41.862	1.000	32.82
ATOM	1578	CZ3	TRP	A	209	16.086	3.142	40.564	1.000	33.95
ATOM	1579	CH2	TRP	A	209	15.939	4.478	40.159	1.000	36.07
ATOM	1580	CZ2	TRP	A	209	15.527	5.448	41.033	1.000	22.47
ATOM	1581	C	TRP	A	209	15.490	3.239	47.397	1.000	36.81
ATOM	1582	O	TRP	A	209	14.515	2.795	48.008	1.000	32.77
ATOM	1583	N	PRO	A	210	16.069	4.369	47.770	1.000	34.94
ATOM	1584	CA	PRO	A	210	15.624	5.061	48.987	1.000	33.09
ATOM	1585	CB	PRO	A	210	16.456	6.345	48.988	1.000	32.95
ATOM	1586	CG	PRO	A	210	17.633	6.063	48.123	1.000	34.50
ATOM	1587	CD	PRO	A	210	17.160	5.078	47.088	1.000	36.07
ATOM	1588	C	PRO	A	210	14.140	5.412	48.940	1.000	41.55
ATOM	1589	O	PRO	A	210	13.515	5.321	47.882	1.000	42.95
ATOM	1590	N	ASP	A	211	13.590	5.820	50.081	1.000	49.64
ATOM	1591	CA	ASP	A	211	12.183	6.214	50.158	1.000	54.78
ATOM	1592	CB	ASP	A	211	11.720	6.296	51.612	1.000	55.95
ATOM	1593	CG	ASP	A	211	11.048	5.030	52.100	1.000	56.96
ATOM	1594	OD1	ASP	A	211	10.660	4.976	53.286	1.000	50.78
ATOM	1595	OD2	ASP	A	211	10.905	4.079	51.306	1.000	63.04
ATOM	1596	C	ASP	A	211	11.959	7.551	49.457	1.000	52.82
ATOM	1597	O	ASP	A	211	10.896	7.882	48.937	1.000	45.02
ATOM	1598	N	HIS	A	212	13.020	8.351	49.446	1.000	48.03
ATOM	1599	CA	HIS	A	212	12.961	9.675	48.845	1.000	53.87
ATOM	1600	CB	HIS	A	212	12.846	10.746	49.934	1.000	72.68
ATOM	1601	CG	HIS	A	212	12.681	10.177	51.311	1.000	76.92
ATOM	1602	ND1	HIS	A	212	11.458	10.093	51.935	1.000	78.57
ATOM	1603	CE1	HIS	A	212	11.610	9.555	53.133	1.000	80.63
ATOM	1604	NE2	HIS	A	212	12.890	9.277	53.307	1.000	79.40
ATOM	1605	CD2	HIS	A	212	13.578	9.660	52.180	1.000	77.05
ATOM	1606	C	HIS	A	212	14.197	9.908	47.986	1.000	46.17
ATOM	1607	O	HIS	A	212	15.310	9.572	48.392	1.000	42.06
ATOM	1608	N	GLY	A	213	13.992	10.472	46.799	1.000	43.66
ATOM	1609	CA	GLY	A	213	15.091	10.704	45.885	1.000	43.27
ATOM	1610	C	GLY	A	213	15.654	9.421	45.299	1.000	41.13
ATOM	1611	O	GLY	A	213	15.050	8.357	45.431	1.000	31.32

**FIGURE 37**

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ATOM	1612	N	VAL	A	214	16.804	9.569	44.663	1.000	40.78
ATOM	1613	CA	VAL	A	214	17.476	8.540	43.881	1.000	37.49
ATOM	1614	CB	VAL	A	214	18.098	9.200	42.644	1.000	31.11
ATOM	1615	CG1	VAL	A	214	17.047	10.031	41.917	1.000	31.20
ATOM	1616	CG2	VAL	A	214	19.284	10.056	43.059	1.000	42.36
ATOM	1617	C	VAL	A	214	18.526	7.827	44.715	1.000	45.89
ATOM	1618	O	VAL	A	214	18.953	8.384	45.729	1.000	57.46
ATOM	1619	N	PRO	A	215	18.933	6.624	44.333	1.000	40.93
ATOM	1620	CA	PRO	A	215	19.764	5.782	45.188	1.000	34.00
ATOM	1621	CB	PRO	A	215	20.251	4.672	44.247	1.000	42.73
ATOM	1622	CG	PRO	A	215	19.225	4.606	43.168	1.000	48.15
ATOM	1623	CD	PRO	A	215	18.636	5.975	43.041	1.000	45.87
ATOM	1624	C	PRO	A	215	21.003	6.478	45.755	1.000	38.07
ATOM	1625	O	PRO	A	215	21.508	7.427	45.159	1.000	36.58
ATOM	1626	N	GLU	A	216	21.427	5.942	46.886	1.000	51.41
ATOM	1627	CA	GLU	A	216	22.569	6.331	47.688	1.000	59.42
ATOM	1628	CB	GLU	A	216	23.016	5.168	48.587	1.000	62.22
ATOM	1629	CG	GLU	A	216	24.008	5.566	49.666	1.000	66.95
ATOM	1630	CD	GLU	A	216	25.143	4.586	49.863	1.000	69.08
ATOM	1631	OE1	GLU	A	216	24.891	3.377	50.036	1.000	49.54
ATOM	1632	OE2	GLU	A	216	26.314	5.036	49.867	1.000	70.82
ATOM	1633	C	GLU	A	216	23.739	6.782	46.818	1.000	54.66
ATOM	1634	O	GLU	A	216	24.238	7.895	46.980	1.000	48.01
ATOM	1635	N	THR	A	217	24.155	5.905	45.908	1.000	43.30
ATOM	1636	CA	THR	A	217	25.239	6.207	44.989	1.000	40.68
ATOM	1637	CB	THR	A	217	26.492	5.353	45.264	1.000	40.90
ATOM	1638	OG1	THR	A	217	26.180	3.960	45.083	1.000	41.85
ATOM	1639	CG2	THR	A	217	26.966	5.527	46.698	1.000	28.03
ATOM	1640	C	THR	A	217	24.823	5.970	43.535	1.000	42.76
ATOM	1641	O	THR	A	217	23.831	5.299	43.269	1.000	55.29
ATOM	1642	N	THR	A	218	25.612	6.524	42.625	1.000	38.69
ATOM	1643	CA	THR	A	218	25.506	6.280	41.199	1.000	46.38
ATOM	1644	CB	THR	A	218	26.407	7.242	40.399	1.000	48.77
ATOM	1645	OG1	THR	A	218	27.771	7.133	40.833	1.000	31.20
ATOM	1646	CG2	THR	A	218	26.004	8.690	40.634	1.000	44.45
ATOM	1647	C	THR	A	218	25.887	4.831	40.882	1.000	40.27
ATOM	1648	O	THR	A	218	25.248	4.124	40.099	1.000	43.37
ATOM	1649	N	GLN	A	219	26.962	4.401	41.524	1.000	36.77
ATOM	1650	CA	GLN	A	219	27.592	3.095	41.332	1.000	40.35
ATOM	1651	CB	GLN	A	219	28.841	3.052	42.215	1.000	46.27
ATOM	1652	CG	GLN	A	219	29.392	1.680	42.538	1.000	60.44
ATOM	1653	CD	GLN	A	219	30.902	1.629	42.393	1.000	71.25
ATOM	1654	OE1	GLN	A	219	31.414	1.573	41.274	1.000	90.40
ATOM	1655	NE2	GLN	A	219	31.593	1.640	43.527	1.000	53.90
ATOM	1656	C	GLN	A	219	26.621	1.959	41.619	1.000	37.53
ATOM	1657	O	GLN	A	219	26.618	0.907	40.977	1.000	32.61
ATOM	1658	N	SER	A	220	25.739	2.146	42.596	1.000	33.04
ATOM	1659	CA	SER	A	220	24.720	1.164	42.929	1.000	26.50
ATOM	1660	CB	SER	A	220	23.845	1.739	44.049	1.000	29.93
ATOM	1661	OG	SER	A	220	22.837	0.814	44.413	1.000	35.63
ATOM	1662	C	SER	A	220	23.860	0.792	41.727	1.000	34.98
ATOM	1663	O	SER	A	220	23.745	-0.378	41.354	1.000	31.36

**FIGURE 38**

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ATOM	1664	N	LEU	A	221	23.247	1.800	41.104	1.000	34.26
ATOM	1665	CA	LEU	A	221	22.404	1.571	39.940	1.000	32.25
ATOM	1666	CB	LEU	A	221	21.483	2.764	39.648	1.000	25.67
ATOM	1667	CG	LEU	A	221	20.313	2.430	38.705	1.000	23.74
ATOM	1668	CD1	LEU	A	221	19.468	1.312	39.303	1.000	18.81
ATOM	1669	CD2	LEU	A	221	19.490	3.672	38.420	1.000	28.95
ATOM	1670	C	LEU	A	221	23.238	1.270	38.700	1.000	36.04
ATOM	1671	O	LEU	A	221	22.797	0.534	37.806	1.000	29.22
ATOM	1672	N	ILE	A	222	24.446	1.845	38.637	1.000	33.99
ATOM	1673	CA	ILE	A	222	25.231	1.532	37.445	1.000	25.77
ATOM	1674	CB	ILE	A	222	26.562	2.282	37.364	1.000	24.00
ATOM	1675	CG1	ILE	A	222	26.426	3.748	36.963	1.000	25.72
ATOM	1676	CD1	ILE	A	222	27.516	4.638	37.512	1.000	30.84
ATOM	1677	CG2	ILE	A	222	27.496	1.556	36.405	1.000	31.40
ATOM	1678	C	ILE	A	222	25.511	0.027	37.382	1.000	27.84
ATOM	1679	O	ILE	A	222	25.444	-0.541	36.293	1.000	29.04
ATOM	1680	N	GLN	A	223	25.789	-0.572	38.525	1.000	25.48
ATOM	1681	CA	GLN	A	223	26.120	-1.982	38.660	1.000	27.33
ATOM	1682	CB	GLN	A	223	26.628	-2.245	40.091	1.000	32.58
ATOM	1683	CG	GLN	A	223	28.119	-1.965	40.240	1.000	37.66
ATOM	1684	CD	GLN	A	223	28.804	-1.836	38.896	1.000	40.45
ATOM	1685	OE1	GLN	A	223	28.765	-2.759	38.076	1.000	70.90
ATOM	1686	NE2	GLN	A	223	29.430	-0.693	38.657	1.000	56.51
ATOM	1687	C	GLN	A	223	24.952	-2.916	38.387	1.000	25.59
ATOM	1688	O	GLN	A	223	25.071	-3.940	37.712	1.000	26.61
ATOM	1689	N	PHE	A	224	23.794	-2.560	38.945	1.000	23.53
ATOM	1690	CA	PHE	A	224	22.586	-3.328	38.637	1.000	26.71
ATOM	1691	CB	PHE	A	224	21.408	-2.714	39.374	1.000	23.63
ATOM	1692	CG	PHE	A	224	20.093	-3.429	39.226	1.000	23.65
ATOM	1693	CD1	PHE	A	224	19.892	-4.676	39.789	1.000	26.30
ATOM	1694	CE1	PHE	A	224	18.688	-5.341	39.670	1.000	23.27
ATOM	1695	CZ	PHE	A	224	17.660	-4.747	38.963	1.000	22.78
ATOM	1696	CE2	PHE	A	224	17.843	-3.504	38.397	1.000	21.02
ATOM	1697	CD2	PHE	A	224	19.050	-2.842	38.529	1.000	17.14
ATOM	1698	C	PHE	A	224	22.335	-3.340	37.135	1.000	29.21
ATOM	1699	O	PHE	A	224	22.212	-4.385	36.497	1.000	23.28
ATOM	1700	N	VAL	A	225	22.272	-2.147	36.539	1.000	29.45
ATOM	1701	CA	VAL	A	225	22.003	-2.057	35.103	1.000	23.17
ATOM	1702	CB	VAL	A	225	22.017	-0.597	34.616	1.000	27.27
ATOM	1703	CG1	VAL	A	225	22.186	-0.539	33.112	1.000	19.10
ATOM	1704	CG2	VAL	A	225	20.732	0.108	35.045	1.000	33.43
ATOM	1705	C	VAL	A	225	22.985	-2.871	34.273	1.000	28.40
ATOM	1706	O	VAL	A	225	22.554	-3.638	33.400	1.000	25.05
ATOM	1707	N	ARG	A	226	24.285	-2.724	34.517	1.000	31.38
ATOM	1708	CA	ARG	A	226	25.276	-3.513	33.780	1.000	34.53
ATOM	1709	CB	ARG	A	226	26.705	-3.147	34.173	1.000	31.80
ATOM	1710	CG	ARG	A	226	27.183	-1.771	33.762	1.000	33.34
ATOM	1711	CD	ARG	A	226	28.697	-1.716	33.673	1.000	47.45
ATOM	1712	NE	ARG	A	226	29.241	-0.365	33.600	1.000	56.24
ATOM	1713	CZ	ARG	A	226	29.961	0.232	34.542	1.000	62.79
ATOM	1714	NH1	ARG	A	226	30.261	-0.370	35.686	1.000	50.14
ATOM	1715	NH2	ARG	A	226	30.401	1.471	34.354	1.000	74.65

**FIGURE 39**

ATOM	1716	C	ARG	A	226	25.054	-5.011	34.010	1.000	23.44
ATOM	1717	O	ARG	A	226	25.301	-5.826	33.118	1.000	30.89
ATOM	1718	N	THR	A	227	24.582	-5.377	35.195	1.000	21.86
ATOM	1719	CA	THR	A	227	24.250	-6.761	35.521	1.000	31.38
ATOM	1720	CB	THR	A	227	23.825	-6.921	36.994	1.000	37.64
ATOM	1721	OG1	THR	A	227	24.903	-6.608	37.874	1.000	34.53
ATOM	1722	CG2	THR	A	227	23.457	-8.365	37.306	1.000	22.45
ATOM	1723	C	THR	A	227	23.108	-7.250	34.627	1.000	32.76
ATOM	1724	O	THR	A	227	23.237	-8.240	33.912	1.000	27.21
ATOM	1725	N	VAL	A	228	21.985	-6.526	34.679	1.000	22.99
ATOM	1726	CA	VAL	A	228	20.814	-6.869	33.886	1.000	22.33
ATOM	1727	CB	VAL	A	228	19.627	-5.922	34.162	1.000	22.12
ATOM	1728	CG1	VAL	A	228	18.466	-6.213	33.221	1.000	17.66
ATOM	1729	CG2	VAL	A	228	19.192	-6.066	35.605	1.000	18.46
ATOM	1730	C	VAL	A	228	21.140	-6.859	32.397	1.000	21.49
ATOM	1731	O	VAL	A	228	20.766	-7.790	31.686	1.000	22.44
ATOM	1732	N	ARG	A	229	21.821	-5.824	31.914	1.000	19.91
ATOM	1733	CA	ARG	A	229	22.183	-5.792	30.489	1.000	30.48
ATOM	1734	CB	ARG	A	229	22.877	-4.480	30.149	1.000	30.12
ATOM	1735	CG	ARG	A	229	23.502	-4.301	28.786	1.000	28.02
ATOM	1736	CD	ARG	A	229	22.590	-4.596	27.614	1.000	26.85
ATOM	1737	NE	ARG	A	229	21.290	-3.951	27.719	1.000	26.70
ATOM	1738	CZ	ARG	A	229	20.267	-4.199	26.913	1.000	27.29
ATOM	1739	NH1	ARG	A	229	20.394	-5.079	25.930	1.000	20.12
ATOM	1740	NH2	ARG	A	229	19.110	-3.573	27.076	1.000	22.84
ATOM	1741	C	ARG	A	229	23.041	-7.010	30.156	1.000	42.31
ATOM	1742	O	ARG	A	229	22.988	-7.552	29.053	1.000	34.86
ATOM	1743	N	ASP	A	230	23.842	-7.483	31.114	1.000	40.71
ATOM	1744	CA	ASP	A	230	24.637	-8.682	30.882	1.000	32.09
ATOM	1745	CB	ASP	A	230	25.480	-9.003	32.118	1.000	31.74
ATOM	1746	CG	ASP	A	230	26.543	-10.044	31.824	1.000	48.14
ATOM	1747	OD1	ASP	A	230	27.577	-10.046	32.528	1.000	73.82
ATOM	1748	OD2	ASP	A	230	26.357	-10.865	30.899	1.000	48.16
ATOM	1749	C	ASP	A	230	23.761	-9.882	30.547	1.000	32.41
ATOM	1750	O	ASP	A	230	24.000	-10.629	29.598	1.000	36.42
ATOM	1751	N	TYR	A	231	22.720	-10.093	31.342	1.000	24.93
ATOM	1752	CA	TYR	A	231	21.802	-11.200	31.103	1.000	24.73
ATOM	1753	CB	TYR	A	231	20.899	-11.375	32.314	1.000	25.55
ATOM	1754	CG	TYR	A	231	21.532	-12.058	33.498	1.000	21.52
ATOM	1755	CD1	TYR	A	231	22.248	-11.325	34.429	1.000	20.07
ATOM	1756	CE1	TYR	A	231	22.826	-11.956	35.516	1.000	25.25
ATOM	1757	CZ	TYR	A	231	22.690	-13.315	35.684	1.000	23.69
ATOM	1758	OH	TYR	A	231	23.272	-13.934	36.770	1.000	36.60
ATOM	1759	CE2	TYR	A	231	21.981	-14.060	34.765	1.000	22.85
ATOM	1760	CD2	TYR	A	231	21.406	-13.431	33.678	1.000	23.77
ATOM	1761	C	TYR	A	231	20.940	-10.997	29.866	1.000	24.62
ATOM	1762	O	TYR	A	231	20.658	-11.948	29.137	1.000	34.40
ATOM	1763	N	ILE	A	232	20.502	-9.768	29.602	1.000	26.34
ATOM	1764	CA	ILE	A	232	19.713	-9.542	28.388	1.000	29.59
ATOM	1765	CB	ILE	A	232	19.309	-8.068	28.191	1.000	19.99
ATOM	1766	CG1	ILE	A	232	18.283	-7.551	29.204	1.000	21.05
ATOM	1767	CD1	ILE	A	232	18.300	-6.047	29.371	1.000	26.31

**FIGURE 40**

ATOM	1768	CG2	ILE	A	232	18.811	-7.833	26.772	1.000	16.63
ATOM	1769	C	ILE	A	232	20.497	-9.985	27.153	1.000	25.92
ATOM	1770	O	ILE	A	232	19.982	-10.719	26.311	1.000	22.41
ATOM	1771	N	ASN	A	233	21.741	-9.526	27.075	1.000	21.03
ATOM	1772	CA	ASN	A	233	22.573	-9.788	25.900	1.000	32.05
ATOM	1773	CB	ASN	A	233	23.931	-9.102	26.027	1.000	31.19
ATOM	1774	CG	ASN	A	233	23.891	-7.603	25.830	1.000	35.15
ATOM	1775	OD1	ASN	A	233	22.990	-7.064	25.190	1.000	42.73
ATOM	1776	ND2	ASN	A	233	24.873	-6.892	26.379	1.000	33.97
ATOM	1777	C	ASN	A	233	22.757	-11.289	25.690	1.000	36.07
ATOM	1778	O	ASN	A	233	22.998	-11.738	24.575	1.000	43.18
ATOM	1779	N	ARG	A	234	22.637	-12.049	26.765	1.000	37.01
ATOM	1780	CA	ARG	A	234	22.702	-13.496	26.771	1.000	31.16
ATOM	1781	CB	ARG	A	234	23.407	-13.992	28.046	1.000	30.18
ATOM	1782	CG	ARG	A	234	24.757	-13.308	28.235	1.000	40.73
ATOM	1783	CD	ARG	A	234	25.514	-13.886	29.429	1.000	52.07
ATOM	1784	NE	ARG	A	234	26.704	-13.084	29.729	1.000	58.87
ATOM	1785	CZ	ARG	A	234	27.879	-13.610	30.055	1.000	65.29
ATOM	1786	NH1	ARG	A	234	28.006	-14.931	30.122	1.000	53.28
ATOM	1787	NH2	ARG	A	234	28.913	-12.818	30.313	1.000	60.98
ATOM	1788	C	ARG	A	234	21.320	-14.122	26.695	1.000	30.94
ATOM	1789	O	ARG	A	234	21.130	-15.307	26.977	1.000	24.57
ATOM	1790	N	SER	A	235	20.307	-13.346	26.303	1.000	26.15
ATOM	1791	CA	SER	A	235	18.990	-13.971	26.162	1.000	23.60
ATOM	1792	CB	SER	A	235	17.959	-13.293	27.058	1.000	26.05
ATOM	1793	OG	SER	A	235	18.357	-13.227	28.416	1.000	33.56
ATOM	1794	C	SER	A	235	18.533	-13.913	24.704	1.000	32.45
ATOM	1795	O	SER	A	235	17.616	-13.135	24.420	1.000	33.61
ATOM	1796	N	PRO	A	236	19.136	-14.685	23.805	1.000	44.30
ATOM	1797	CA	PRO	A	236	18.740	-14.662	22.393	1.000	39.17
ATOM	1798	CB	PRO	A	236	19.695	-15.646	21.714	1.000	48.74
ATOM	1799	CG	PRO	A	236	20.068	-16.584	22.822	1.000	52.35
ATOM	1800	CD	PRO	A	236	20.220	-15.667	24.009	1.000	52.02
ATOM	1801	C	PRO	A	236	17.312	-15.175	22.233	1.000	29.65
ATOM	1802	O	PRO	A	236	16.908	-16.104	22.941	1.000	30.54
ATOM	1803	N	GLY	A	237	16.590	-14.544	21.309	1.000	24.46
ATOM	1804	CA	GLY	A	237	15.214	-14.952	21.050	1.000	25.34
ATOM	1805	C	GLY	A	237	14.233	-14.388	22.054	1.000	26.14
ATOM	1806	O	GLY	A	237	13.035	-14.623	21.905	1.000	33.46
ATOM	1807	N	ALA	A	238	14.681	-13.642	23.069	1.000	22.93
ATOM	1808	CA	ALA	A	238	13.739	-13.094	24.042	1.000	17.40
ATOM	1809	CB	ALA	A	238	14.491	-12.542	25.253	1.000	20.22
ATOM	1810	C	ALA	A	238	12.860	-11.987	23.485	1.000	22.13
ATOM	1811	O	ALA	A	238	13.305	-11.162	22.683	1.000	22.14
ATOM	1812	N	GLY	A	239	11.599	-11.944	23.922	1.000	22.60
ATOM	1813	CA	GLY	A	239	10.794	-10.755	23.654	1.000	19.77
ATOM	1814	C	GLY	A	239	11.314	-9.578	24.475	1.000	23.04
ATOM	1815	O	GLY	A	239	12.456	-9.584	24.931	1.000	22.08
ATOM	1816	N	PRO	A	240	10.501	-8.544	24.664	1.000	20.46
ATOM	1817	CA	PRO	A	240	10.904	-7.365	25.418	1.000	18.32
ATOM	1818	CB	PRO	A	240	9.645	-6.478	25.441	1.000	15.24
ATOM	1819	CG	PRO	A	240	8.855	-6.953	24.270	1.000	26.50

**FIGURE 41**

ATOM	1820	CD	PRO	A	240	9.123	-8.425	24.156	1.000	18.86
ATOM	1821	C	PRO	A	240	11.261	-7.689	26.866	1.000	24.79
ATOM	1822	O	PRO	A	240	10.775	-8.644	27.466	1.000	18.83
ATOM	1823	N	THR	A	241	12.130	-6.846	27.414	1.000	24.76
ATOM	1824	CA	THR	A	241	12.452	-6.849	28.822	1.000	19.34
ATOM	1825	CB	THR	A	241	13.790	-6.140	29.127	1.000	24.33
ATOM	1826	OG1	THR	A	241	14.851	-6.786	28.430	1.000	21.31
ATOM	1827	CG2	THR	A	241	14.100	-6.254	30.618	1.000	17.13
ATOM	1828	C	THR	A	241	11.352	-6.124	29.598	1.000	19.74
ATOM	1829	O	THR	A	241	11.073	-4.964	29.314	1.000	18.65
ATOM	1830	N	VAL	A	242	10.731	-6.769	30.576	1.000	19.16
ATOM	1831	CA	VAL	A	242	9.738	-6.070	31.381	1.000	24.84
ATOM	1832	CB	VAL	A	242	8.698	-7.016	32.012	1.000	25.33
ATOM	1833	CG1	VAL	A	242	7.903	-6.283	33.087	1.000	13.96
ATOM	1834	CG2	VAL	A	242	7.778	-7.573	30.936	1.000	18.53
ATOM	1835	C	VAL	A	242	10.420	-5.311	32.515	1.000	22.81
ATOM	1836	O	VAL	A	242	11.202	-5.907	33.245	1.000	15.62
ATOM	1837	N	VAL	A	243	10.114	-4.032	32.656	1.000	16.25
ATOM	1838	CA	VAL	A	243	10.607	-3.200	33.733	1.000	14.93
ATOM	1839	CB	VAL	A	243	11.507	-2.058	33.233	1.000	19.66
ATOM	1840	CG1	VAL	A	243	12.145	-1.357	34.424	1.000	17.79
ATOM	1841	CG2	VAL	A	243	12.551	-2.600	32.271	1.000	16.83
ATOM	1842	C	VAL	A	243	9.437	-2.590	34.489	1.000	18.40
ATOM	1843	O	VAL	A	243	8.522	-2.079	33.856	1.000	17.50
ATOM	1844	N	HIS	A	244	9.469	-2.655	35.821	1.000	14.50
ATOM	1845	CA	HIS	A	244	8.388	-2.005	36.543	1.000	19.33
ATOM	1846	CB	HIS	A	244	7.200	-2.952	36.704	1.000	15.76
ATOM	1847	CG	HIS	A	244	7.362	-4.005	37.749	1.000	15.99
ATOM	1848	ND1	HIS	A	244	7.060	-3.783	39.076	1.000	16.28
ATOM	1849	CE1	HIS	A	244	7.293	-4.893	39.761	1.000	23.84
ATOM	1850	NE2	HIS	A	244	7.736	-5.820	38.934	1.000	18.37
ATOM	1851	CD2	HIS	A	244	7.785	-5.289	37.665	1.000	12.59
ATOM	1852	C	HIS	A	244	8.868	-1.514	37.906	1.000	22.68
ATOM	1853	O	HIS	A	244	9.879	-1.996	38.398	1.000	22.27
ATOM	1854	N	CYS	A	245	8.127	-0.563	38.448	1.000	22.48
ATOM	1855	CA	CYS	A	245	8.229	-0.136	39.836	1.000	22.65
ATOM	1856	CB	CYS	A	245	8.861	1.241	39.990	1.000	16.47
ATOM	1857	SG	CYS	A	245	8.219	2.535	38.895	1.000	26.22
ATOM	1858	C	CYS	A	245	6.812	-0.194	40.402	1.000	23.88
ATOM	1859	O	CYS	A	245	6.094	-1.173	40.153	1.000	26.38
ATOM	1860	N	SER	A	246	6.385	0.833	41.132	1.000	17.80
ATOM	1861	CA	SER	A	246	4.995	0.806	41.607	1.000	11.67
ATOM	1862	CB	SER	A	246	4.853	1.726	42.821	1.000	26.78
ATOM	1863	OG	SER	A	246	3.561	1.643	43.393	1.000	30.47
ATOM	1864	C	SER	A	246	4.033	1.208	40.501	1.000	11.21
ATOM	1865	O	SER	A	246	3.068	0.510	40.185	1.000	20.25
ATOM	1866	N	ALA	A	247	4.286	2.377	39.909	1.000	15.30
ATOM	1867	CA	ALA	A	247	3.455	2.947	38.871	1.000	13.07
ATOM	1868	CB	ALA	A	247	3.302	4.446	39.102	1.000	23.22
ATOM	1869	C	ALA	A	247	4.008	2.710	37.468	1.000	17.09
ATOM	1870	O	ALA	A	247	3.286	2.806	36.473	1.000	23.76
ATOM	1871	N	GLY	A	248	5.300	2.413	37.353	1.000	15.64

FIGURE 42

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Three Dimensional Coordinates of HPTPbeta

ATOM	1872	CA	GLY A 248	5.920	2.177	36.056	1.000	19.79
ATOM	1873	C	GLY A 248	6.329	3.497	35.413	1.000	28.08
ATOM	1874	O	GLY A 248	6.206	3.654	34.200	1.000	29.60
ATOM	1875	N	VAL A 249	6.828	4.410	36.242	1.000	24.91
ATOM	1876	CA	VAL A 249	7.165	5.771	35.893	1.000	28.97
ATOM	1877	CB	VAL A 249	6.349	6.742	36.799	1.000	36.67
ATOM	1878	CG1	VAL A 249	4.984	6.994	36.192	1.000	26.78
ATOM	1879	CG2	VAL A 249	6.223	6.201	38.219	1.000	28.45
ATOM	1880	C	VAL A 249	8.635	6.167	36.035	1.000	29.09
ATOM	1881	O	VAL A 249	9.456	5.930	35.151	1.000	32.80
ATOM	1882	N	GLY A 250	8.941	6.823	37.144	1.000	24.19
ATOM	1883	CA	GLY A 250	10.149	7.515	37.501	1.000	19.59
ATOM	1884	C	GLY A 250	11.344	6.573	37.577	1.000	14.84
ATOM	1885	O	GLY A 250	12.267	6.702	36.763	1.000	27.35
ATOM	1886	N	ARG A 251	11.280	5.662	38.534	1.000	11.74
ATOM	1887	CA	ARG A 251	12.347	4.688	38.735	1.000	15.59
ATOM	1888	CB	ARG A 251	12.096	3.823	39.969	1.000	21.64
ATOM	1889	CG	ARG A 251	11.869	4.624	41.250	1.000	23.80
ATOM	1890	CD	ARG A 251	11.653	3.670	42.416	1.000	23.58
ATOM	1891	NE	ARG A 251	11.390	4.352	43.679	1.000	22.88
ATOM	1892	CZ	ARG A 251	11.100	3.675	44.791	1.000	22.64
ATOM	1893	NH1	ARG A 251	11.042	2.354	44.756	1.000	26.67
ATOM	1894	NH2	ARG A 251	10.865	4.301	45.931	1.000	21.50
ATOM	1895	C	ARG A 251	12.517	3.790	37.513	1.000	19.15
ATOM	1896	O	ARG A 251	13.649	3.477	37.144	1.000	23.13
ATOM	1897	N	THR A 252	11.409	3.372	36.904	1.000	18.67
ATOM	1898	CA	THR A 252	11.482	2.546	35.702	1.000	18.13
ATOM	1899	CB	THR A 252	10.103	2.014	35.289	1.000	20.50
ATOM	1900	OG1	THR A 252	9.706	1.005	36.228	1.000	22.47
ATOM	1901	CG2	THR A 252	10.127	1.333	33.924	1.000	18.43
ATOM	1902	C	THR A 252	12.101	3.351	34.562	1.000	20.66
ATOM	1903	O	THR A 252	13.001	2.852	33.877	1.000	22.41
ATOM	1904	N	GLY A 253	11.627	4.580	34.377	1.000	19.06
ATOM	1905	CA	GLY A 253	12.124	5.407	33.276	1.000	24.03
ATOM	1906	C	GLY A 253	13.615	5.663	33.423	1.000	26.29
ATOM	1907	O	GLY A 253	14.370	5.727	32.452	1.000	20.33
ATOM	1908	N	THR A 254	14.036	5.811	34.674	1.000	20.94
ATOM	1909	CA	THR A 254	15.433	6.059	35.011	1.000	25.32
ATOM	1910	CB	THR A 254	15.546	6.439	36.505	1.000	23.28
ATOM	1911	OG1	THR A 254	14.879	7.688	36.704	1.000	19.41
ATOM	1912	CG2	THR A 254	16.993	6.642	36.910	1.000	22.36
ATOM	1913	C	THR A 254	16.300	4.847	34.714	1.000	22.06
ATOM	1914	O	THR A 254	17.389	4.928	34.151	1.000	27.89
ATOM	1915	N	PHE A 255	15.811	3.671	35.094	1.000	18.65
ATOM	1916	CA	PHE A 255	16.498	2.433	34.780	1.000	13.27
ATOM	1917	CB	PHE A 255	15.709	1.219	35.277	1.000	13.04
ATOM	1918	CG	PHE A 255	16.305	-0.125	34.923	1.000	21.43
ATOM	1919	CD1	PHE A 255	17.222	-0.717	35.783	1.000	22.29
ATOM	1920	CE1	PHE A 255	17.786	-1.941	35.492	1.000	24.82
ATOM	1921	CZ	PHE A 255	17.476	-2.615	34.325	1.000	20.78
ATOM	1922	CE2	PHE A 255	16.558	-2.054	33.461	1.000	16.57
ATOM	1923	CD2	PHE A 255	15.987	-0.836	33.778	1.000	20.56

**FIGURE 43**

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Three Dimensional Coordinates of HPTPbeta

ATOM	1924	C	PHE	A	255	16.721	2.323	33.277	1.000	23.91
ATOM	1925	O	PHE	A	255	17.791	1.918	32.814	1.000	23.04
ATOM	1926	N	ILE	A	256	15.665	2.620	32.511	1.000	21.98
ATOM	1927	CA	ILE	A	256	15.794	2.334	31.082	1.000	23.48
ATOM	1928	CB	ILE	A	256	14.462	2.211	30.336	1.000	22.01
ATOM	1929	CG1	ILE	A	256	13.667	0.941	30.657	1.000	26.28
ATOM	1930	CD1	ILE	A	256	12.210	1.020	30.221	1.000	23.52
ATOM	1931	CG2	ILE	A	256	14.666	2.310	28.823	1.000	17.05
ATOM	1932	C	ILE	A	256	16.666	3.412	30.439	1.000	14.97
ATOM	1933	O	ILE	A	256	17.470	3.058	29.575	1.000	20.35
ATOM	1934	N	ALA	A	257	16.489	4.659	30.864	1.000	16.95
ATOM	1935	CA	ALA	A	257	17.365	5.725	30.354	1.000	13.62
ATOM	1936	CB	ALA	A	257	16.973	7.077	30.894	1.000	16.03
ATOM	1937	C	ALA	A	257	18.811	5.373	30.689	1.000	20.04
ATOM	1938	O	ALA	A	257	19.713	5.497	29.866	1.000	24.71
ATOM	1939	N	LEU	A	258	19.083	4.886	31.908	1.000	20.59
ATOM	1940	CA	LEU	A	258	20.490	4.560	32.186	1.000	25.52
ATOM	1941	CB	LEU	A	258	20.723	4.299	33.673	1.000	29.22
ATOM	1942	CG	LEU	A	258	22.171	4.177	34.151	1.000	33.36
ATOM	1943	CD1	LEU	A	258	23.069	5.186	33.453	1.000	17.44
ATOM	1944	CD2	LEU	A	258	22.268	4.363	35.660	1.000	32.48
ATOM	1945	C	LEU	A	258	20.931	3.377	31.336	1.000	24.80
ATOM	1946	O	LEU	A	258	22.020	3.447	30.768	1.000	31.87
ATOM	1947	N	ASP	A	259	20.130	2.316	31.238	1.000	19.82
ATOM	1948	CA	ASP	A	259	20.524	1.155	30.439	1.000	21.21
ATOM	1949	CB	ASP	A	259	19.441	0.080	30.461	1.000	26.62
ATOM	1950	CG	ASP	A	259	19.716	-1.155	29.637	1.000	33.72
ATOM	1951	OD1	ASP	A	259	20.883	-1.598	29.573	1.000	35.74
ATOM	1952	OD2	ASP	A	259	18.758	-1.719	29.046	1.000	24.80
ATOM	1953	C	ASP	A	259	20.832	1.579	29.010	1.000	21.68
ATOM	1954	O	ASP	A	259	21.742	1.052	28.372	1.000	28.89
ATOM	1955	N	ARG	A	260	20.070	2.539	28.506	1.000	23.42
ATOM	1956	CA	ARG	A	260	20.230	3.024	27.138	1.000	25.06
ATOM	1957	CB	ARG	A	260	19.028	3.897	26.771	1.000	28.71
ATOM	1958	CG	ARG	A	260	17.920	3.218	25.983	1.000	37.83
ATOM	1959	CD	ARG	A	260	17.815	3.892	24.612	1.000	40.41
ATOM	1960	NE	ARG	A	260	16.447	4.236	24.289	1.000	39.10
ATOM	1961	CZ	ARG	A	260	15.997	5.081	23.376	1.000	37.92
ATOM	1962	NH1	ARG	A	260	16.820	5.759	22.595	1.000	44.18
ATOM	1963	NH2	ARG	A	260	14.682	5.235	23.257	1.000	38.91
ATOM	1964	C	ARG	A	260	21.503	3.834	26.932	1.000	28.89
ATOM	1965	O	ARG	A	260	22.183	3.707	25.913	1.000	28.43
ATOM	1966	N	ILE	A	261	21.850	4.713	27.878	1.000	31.24
ATOM	1967	CA	ILE	A	261	23.011	5.568	27.644	1.000	32.00
ATOM	1968	CB	ILE	A	261	23.003	6.871	28.463	1.000	30.49
ATOM	1969	CG1	ILE	A	261	23.174	6.692	29.969	1.000	33.74
ATOM	1970	CD1	ILE	A	261	22.668	7.864	30.782	1.000	47.87
ATOM	1971	CG2	ILE	A	261	21.747	7.669	28.142	1.000	38.62
ATOM	1972	C	ILE	A	261	24.311	4.827	27.939	1.000	30.43
ATOM	1973	O	ILE	A	261	25.293	5.061	27.228	1.000	33.25
ATOM	1974	N	LEU	A	262	24.317	3.958	28.951	1.000	22.89
ATOM	1975	CA	LEU	A	262	25.541	3.189	29.202	1.000	27.21

**FIGURE 44**



ATOM	1976	CB	LEU	A	262	25.411	2.219	30.368	1.000	29.63
ATOM	1977	CG	LEU	A	262	25.330	2.760	31.793	1.000	38.46
ATOM	1978	CD1	LEU	A	262	25.371	1.630	32.815	1.000	28.64
ATOM	1979	CD2	LEU	A	262	26.441	3.762	32.059	1.000	34.63
ATOM	1980	C	LEU	A	262	25.912	2.424	27.931	1.000	37.42
ATOM	1981	O	LEU	A	262	27.090	2.228	27.640	1.000	48.70
ATOM	1982	N	GLN	A	263	24.900	1.987	27.183	1.000	40.24
ATOM	1983	CA	GLN	A	263	25.151	1.267	25.943	1.000	38.78
ATOM	1984	CB	GLN	A	263	23.875	0.706	25.322	1.000	30.36
ATOM	1985	CG	GLN	A	263	23.653	-0.767	25.637	1.000	26.81
ATOM	1986	CD	GLN	A	263	22.223	-1.212	25.423	1.000	28.10
ATOM	1987	OE1	GLN	A	263	21.946	-1.976	24.500	1.000	30.64
ATOM	1988	NE2	GLN	A	263	21.304	-0.760	26.273	1.000	33.75
ATOM	1989	C	GLN	A	263	25.827	2.190	24.934	1.000	44.56
ATOM	1990	O	GLN	A	263	26.667	1.744	24.161	1.000	46.96
ATOM	1991	N	GLN	A	264	25.420	3.455	24.977	1.000	42.51
ATOM	1992	CA	GLN	A	264	25.954	4.431	24.033	1.000	47.48
ATOM	1993	CB	GLN	A	264	25.220	5.773	24.152	1.000	39.34
ATOM	1994	CG	GLN	A	264	23.957	5.807	23.303	1.000	37.99
ATOM	1995	CD	GLN	A	264	23.060	6.989	23.591	1.000	42.10
ATOM	1996	OE1	GLN	A	264	23.477	7.972	24.206	1.000	41.41
ATOM	1997	NE2	GLN	A	264	21.814	6.899	23.144	1.000	49.45
ATOM	1998	C	GLN	A	264	27.452	4.610	24.256	1.000	50.33
ATOM	1999	O	GLN	A	264	28.253	4.493	23.328	1.000	38.61
ATOM	2000	N	LEU	A	265	27.777	4.876	25.513	1.000	49.87
ATOM	2001	CA	LEU	A	265	29.118	5.176	25.984	1.000	51.23
ATOM	2002	CB	LEU	A	265	29.084	5.389	27.503	1.000	48.71
ATOM	2003	CG	LEU	A	265	28.256	6.584	27.988	1.000	49.68
ATOM	2004	CD1	LEU	A	265	28.263	6.684	29.507	1.000	46.47
ATOM	2005	CD2	LEU	A	265	28.757	7.884	27.370	1.000	44.07
ATOM	2006	C	LEU	A	265	30.122	4.097	25.607	1.000	59.08
ATOM	2007	O	LEU	A	265	31.329	4.351	25.565	1.000	62.01
ATOM	2008	N	ASP	A	266	29.656	2.887	25.317	1.000	60.11
ATOM	2009	CA	ASP	A	266	30.559	1.815	24.901	1.000	60.82
ATOM	2010	CB	ASP	A	266	30.345	0.581	25.776	1.000	68.15
ATOM	2011	CG	ASP	A	266	30.603	0.832	27.251	1.000	74.94
ATOM	2012	OD1	ASP	A	266	31.286	1.822	27.599	1.000	87.47
ATOM	2013	OD2	ASP	A	266	30.117	0.033	28.083	1.000	72.82
ATOM	2014	C	ASP	A	266	30.362	1.481	23.428	1.000	56.29
ATOM	2015	O	ASP	A	266	30.797	0.449	22.918	1.000	65.03
ATOM	2016	N	SER	A	267	29.692	2.373	22.703	1.000	49.36
ATOM	2017	CA	SER	A	267	29.450	2.133	21.286	1.000	49.97
ATOM	2018	CB	SER	A	267	28.040	1.563	21.092	1.000	47.54
ATOM	2019	OG	SER	A	267	28.070	0.147	21.070	1.000	70.07
ATOM	2020	C	SER	A	267	29.602	3.403	20.457	1.000	56.45
ATOM	2021	O	SER	A	267	29.833	3.345	19.249	1.000	64.11
ATOM	2022	N	LYS	A	268	29.457	4.547	21.113	1.000	54.03
ATOM	2023	CA	LYS	A	268	29.450	5.851	20.473	1.000	61.77
ATOM	2024	CB	LYS	A	268	28.124	6.565	20.747	1.000	73.01
ATOM	2025	CG	LYS	A	268	27.792	7.746	19.856	1.000	78.98
ATOM	2026	CD	LYS	A	268	26.344	7.687	19.384	1.000	85.20
ATOM	2027	CE	LYS	A	268	25.589	8.983	19.679	1.000	87.23

FIGURE 45

ATOM	2028	NZ	LYS	A	268	24.372	8.773	20.503	1.000	77.94
ATOM	2029	C	LYS	A	268	30.607	6.721	20.967	1.000	57.67
ATOM	2030	O	LYS	A	268	31.288	6.352	21.923	1.000	56.55
ATOM	2031	N	ASP	A	269	30.759	7.842	20.289	1.000	51.51
ATOM	2032	CA	ASP	A	269	31.664	8.925	20.619	1.000	61.39
ATOM	2033	CB	ASP	A	269	32.424	9.415	19.388	1.000	66.41
ATOM	2034	CG	ASP	A	269	31.625	9.286	18.106	1.000	74.35
ATOM	2035	OD1	ASP	A	269	32.119	8.629	17.162	1.000	91.04
ATOM	2036	OD2	ASP	A	269	30.505	9.842	18.044	1.000	81.62
ATOM	2037	C	ASP	A	269	30.865	10.067	21.240	1.000	58.72
ATOM	2038	O	ASP	A	269	31.369	11.104	21.659	1.000	48.76
ATOM	2039	N	SER	A	270	29.551	9.848	21.289	1.000	55.39
ATOM	2040	CA	SER	A	270	28.687	10.847	21.910	1.000	53.30
ATOM	2041	CB	SER	A	270	27.989	11.679	20.834	1.000	46.93
ATOM	2042	OG	SER	A	270	27.692	10.829	19.734	1.000	51.09
ATOM	2043	C	SER	A	270	27.674	10.148	22.807	1.000	54.77
ATOM	2044	O	SER	A	270	27.500	8.934	22.703	1.000	57.87
ATOM	2045	N	VAL	A	271	27.031	10.915	23.668	1.000	51.16
ATOM	2046	CA	VAL	A	271	26.025	10.400	24.590	1.000	47.16
ATOM	2047	CB	VAL	A	271	26.612	10.189	25.992	1.000	43.33
ATOM	2048	CG1	VAL	A	271	27.075	11.525	26.564	1.000	28.98
ATOM	2049	CG2	VAL	A	271	25.609	9.523	26.918	1.000	33.32
ATOM	2050	C	VAL	A	271	24.851	11.374	24.626	1.000	51.02
ATOM	2051	O	VAL	A	271	25.054	12.585	24.754	1.000	45.80
ATOM	2052	N	ASP	A	272	23.639	10.841	24.484	1.000	43.19
ATOM	2053	CA	ASP	A	272	22.451	11.680	24.350	1.000	34.67
ATOM	2054	CB	ASP	A	272	21.819	11.492	22.973	1.000	34.66
ATOM	2055	CG	ASP	A	272	20.791	12.553	22.633	1.000	34.78
ATOM	2056	OD1	ASP	A	272	20.496	13.413	23.488	1.000	35.05
ATOM	2057	OD2	ASP	A	272	20.262	12.537	21.499	1.000	61.92
ATOM	2058	C	ASP	A	272	21.450	11.367	25.450	1.000	37.86
ATOM	2059	O	ASP	A	272	20.601	10.489	25.312	1.000	33.07
ATOM	2060	N	ILE	A	273	21.548	12.095	26.564	1.000	29.66
ATOM	2061	CA	ILE	A	273	20.651	11.774	27.671	1.000	30.56
ATOM	2062	CB	ILE	A	273	21.245	12.212	29.019	1.000	28.78
ATOM	2063	CG1	ILE	A	273	22.562	11.518	29.362	1.000	24.46
ATOM	2064	CD1	ILE	A	273	23.227	12.049	30.612	1.000	33.99
ATOM	2065	CG2	ILE	A	273	20.228	12.016	30.134	1.000	24.56
ATOM	2066	C	ILE	A	273	19.290	12.420	27.450	1.000	36.66
ATOM	2067	O	ILE	A	273	18.264	11.844	27.813	1.000	38.74
ATOM	2068	N	TYR	A	274	19.301	13.608	26.845	1.000	31.39
ATOM	2069	CA	TYR	A	274	18.044	14.276	26.525	1.000	27.62
ATOM	2070	CB	TYR	A	274	18.312	15.642	25.908	1.000	26.54
ATOM	2071	CG	TYR	A	274	17.119	16.489	25.551	1.000	27.58
ATOM	2072	CD1	TYR	A	274	16.633	17.434	26.450	1.000	29.05
ATOM	2073	CE1	TYR	A	274	15.544	18.225	26.150	1.000	28.10
ATOM	2074	CZ	TYR	A	274	14.913	18.089	24.932	1.000	28.89
ATOM	2075	OH	TYR	A	274	13.827	18.881	24.631	1.000	40.18
ATOM	2076	CE2	TYR	A	274	15.372	17.169	24.020	1.000	30.70
ATOM	2077	CD2	TYR	A	274	16.469	16.377	24.331	1.000	31.75
ATOM	2078	C	TYR	A	274	17.228	13.415	25.565	1.000	30.07
ATOM	2079	O	TYR	A	274	16.027	13.221	25.735	1.000	27.79

**FIGURE 46**

ATOM	2080	N	GLY	A	275	17.908	12.908	24.540	1.000	30.84
ATOM	2081	CA	GLY	A	275	17.256	12.132	23.499	1.000	38.31
ATOM	2082	C	GLY	A	275	16.611	10.863	24.016	1.000	36.93
ATOM	2083	O	GLY	A	275	15.515	10.487	23.605	1.000	33.21
ATOM	2084	N	ALA	A	276	17.282	10.176	24.930	1.000	26.01
ATOM	2085	CA	ALA	A	276	16.728	8.949	25.490	1.000	26.10
ATOM	2086	CB	ALA	A	276	17.753	8.300	26.409	1.000	36.77
ATOM	2087	C	ALA	A	276	15.440	9.236	26.248	1.000	26.60
ATOM	2088	O	ALA	A	276	14.412	8.600	26.061	1.000	21.84
ATOM	2089	N	VAL	A	277	15.510	10.227	27.129	1.000	27.46
ATOM	2090	CA	VAL	A	277	14.382	10.602	27.971	1.000	26.38
ATOM	2091	CB	VAL	A	277	14.829	11.656	29.004	1.000	27.97
ATOM	2092	CG1	VAL	A	277	13.661	12.343	29.687	1.000	33.02
ATOM	2093	CG2	VAL	A	277	15.720	10.980	30.043	1.000	17.52
ATOM	2094	C	VAL	A	277	13.229	11.103	27.113	1.000	26.05
ATOM	2095	O	VAL	A	277	12.060	10.837	27.417	1.000	29.47
ATOM	2096	N	HIS	A	278	13.556	11.815	26.043	1.000	20.60
ATOM	2097	CA	HIS	A	278	12.558	12.336	25.113	1.000	25.33
ATOM	2098	CB	HIS	A	278	13.204	13.259	24.087	1.000	27.86
ATOM	2099	CG	HIS	A	278	12.276	13.815	23.054	1.000	25.27
ATOM	2100	ND1	HIS	A	278	11.807	13.069	21.994	1.000	24.22
ATOM	2101	CE1	HIS	A	278	11.015	13.819	21.244	1.000	24.97
ATOM	2102	NE2	HIS	A	278	10.961	15.031	21.773	1.000	23.92
ATOM	2103	CD2	HIS	A	278	11.746	15.050	22.900	1.000	22.15
ATOM	2104	C	HIS	A	278	11.838	11.214	24.370	1.000	23.01
ATOM	2105	O	HIS	A	278	10.650	11.288	24.068	1.000	25.09
ATOM	2106	N	ASP	A	279	12.571	10.160	24.059	1.000	20.73
ATOM	2107	CA	ASP	A	279	11.994	9.026	23.343	1.000	24.89
ATOM	2108	CB	ASP	A	279	13.099	8.159	22.746	1.000	30.17
ATOM	2109	CG	ASP	A	279	12.727	7.306	21.558	1.000	30.34
ATOM	2110	OD1	ASP	A	279	12.077	7.787	20.605	1.000	26.50
ATOM	2111	OD2	ASP	A	279	13.096	6.106	21.539	1.000	33.56
ATOM	2112	C	ASP	A	279	11.131	8.228	24.309	1.000	19.27
ATOM	2113	O	ASP	A	279	10.059	7.720	23.981	1.000	23.16
ATOM	2114	N	LEU	A	280	11.627	8.121	25.541	1.000	17.51
ATOM	2115	CA	LEU	A	280	10.848	7.371	26.523	1.000	25.22
ATOM	2116	CB	LEU	A	280	11.578	7.273	27.857	1.000	22.56
ATOM	2117	CG	LEU	A	280	12.948	6.595	27.878	1.000	30.97
ATOM	2118	CD1	LEU	A	280	13.309	6.169	29.294	1.000	16.61
ATOM	2119	CD2	LEU	A	280	12.998	5.407	26.930	1.000	39.44
ATOM	2120	C	LEU	A	280	9.475	8.027	26.702	1.000	28.43
ATOM	2121	O	LEU	A	280	8.472	7.315	26.678	1.000	19.82
ATOM	2122	N	ARG	A	281	9.480	9.335	26.877	1.000	27.78
ATOM	2123	CA	ARG	A	281	8.364	10.230	27.097	1.000	26.26
ATOM	2124	CB	ARG	A	281	8.840	11.690	27.129	1.000	27.59
ATOM	2125	CG	ARG	A	281	9.597	12.025	28.413	1.000	35.06
ATOM	2126	CD	ARG	A	281	8.645	11.966	29.597	1.000	33.64
ATOM	2127	NE	ARG	A	281	9.295	12.376	30.831	1.000	36.75
ATOM	2128	CZ	ARG	A	281	9.526	13.626	31.204	1.000	40.89
ATOM	2129	NH1	ARG	A	281	9.161	14.636	30.435	1.000	32.39
ATOM	2130	NH2	ARG	A	281	10.132	13.874	32.361	1.000	61.48
ATOM	2131	C	ARG	A	281	7.302	10.096	26.018	1.000	19.40

**FIGURE 47**

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ATOM	2132	O	ARG	A	281	6.104	10.236	26.254	1.000	20.20
ATOM	2133	N	LEU	A	282	7.773	9.823	24.805	1.000	20.07
ATOM	2134	CA	LEU	A	282	6.823	9.651	23.711	1.000	23.11
ATOM	2135	CB	LEU	A	282	7.523	9.589	22.353	1.000	17.59
ATOM	2136	CG	LEU	A	282	7.893	10.913	21.688	1.000	27.09
ATOM	2137	CD1	LEU	A	282	8.800	10.679	20.489	1.000	27.56
ATOM	2138	CD2	LEU	A	282	6.660	11.688	21.243	1.000	20.11
ATOM	2139	C	LEU	A	282	5.974	8.404	23.913	1.000	26.60
ATOM	2140	O	LEU	A	282	4.880	8.342	23.352	1.000	22.78
ATOM	2141	N	HIS	A	283	6.430	7.412	24.678	1.000	25.41
ATOM	2142	CA	HIS	A	283	5.698	6.144	24.667	1.000	19.57
ATOM	2143	CB	HIS	A	283	6.688	5.008	24.336	1.000	24.33
ATOM	2144	CG	HIS	A	283	7.263	5.215	22.965	1.000	22.62
ATOM	2145	ND1	HIS	A	283	6.742	4.619	21.841	1.000	26.42
ATOM	2146	CE1	HIS	A	283	7.436	4.985	20.775	1.000	25.06
ATOM	2147	NE2	HIS	A	283	8.386	5.808	21.174	1.000	24.57
ATOM	2148	CD2	HIS	A	283	8.300	5.974	22.536	1.000	21.10
ATOM	2149	C	HIS	A	283	4.956	5.861	25.961	1.000	17.31
ATOM	2150	O	HIS	A	283	4.101	4.976	26.006	1.000	20.69
ATOM	2151	N	ARG	A	284	5.262	6.606	27.011	1.000	16.92
ATOM	2152	CA	ARG	A	284	4.594	6.512	28.296	1.000	15.56
ATOM	2153	CB	ARG	A	284	5.038	5.279	29.091	1.000	19.52
ATOM	2154	CG	ARG	A	284	4.214	5.010	30.355	1.000	16.19
ATOM	2155	CD	ARG	A	284	4.569	3.660	30.954	1.000	19.69
ATOM	2156	NE	ARG	A	284	4.009	3.428	32.282	1.000	18.76
ATOM	2157	CZ	ARG	A	284	2.892	2.731	32.492	1.000	19.76
ATOM	2158	NH1	ARG	A	284	2.214	2.207	31.475	1.000	11.48
ATOM	2159	NH2	ARG	A	284	2.439	2.553	33.726	1.000	17.29
ATOM	2160	C	ARG	A	284	4.845	7.774	29.119	1.000	15.30
ATOM	2161	O	ARG	A	284	5.941	8.327	29.076	1.000	25.00
ATOM	2162	N	VAL	A	285	3.834	8.221	29.846	1.000	19.78
ATOM	2163	CA	VAL	A	285	3.912	9.415	30.685	1.000	26.66
ATOM	2164	CB	VAL	A	285	2.507	9.771	31.215	1.000	32.12
ATOM	2165	CG1	VAL	A	285	1.981	8.686	32.152	1.000	20.70
ATOM	2166	CG2	VAL	A	285	2.503	11.126	31.909	1.000	29.12
ATOM	2167	C	VAL	A	285	4.917	9.216	31.814	1.000	20.03
ATOM	2168	O	VAL	A	285	5.153	8.085	32.242	1.000	23.27
ATOM	2169	N	HIS	A	286	5.510	10.296	32.281	1.000	28.92
ATOM	2170	CA	HIS	A	286	6.440	10.404	33.382	1.000	29.32
ATOM	2171	CB	HIS	A	286	5.744	10.052	34.718	1.000	33.92
ATOM	2172	CG	HIS	A	286	4.476	10.821	34.904	1.000	38.90
ATOM	2173	ND1	HIS	A	286	4.430	12.188	34.769	1.000	45.43
ATOM	2174	CE1	HIS	A	286	3.197	12.615	34.978	1.000	45.72
ATOM	2175	NE2	HIS	A	286	2.439	11.567	35.244	1.000	48.04
ATOM	2176	CD2	HIS	A	286	3.216	10.433	35.200	1.000	47.11
ATOM	2177	C	HIS	A	286	7.669	9.521	33.267	1.000	24.27
ATOM	2178	O	HIS	A	286	8.292	9.259	34.303	1.000	39.87
ATOM	2179	N	MET	A	287	8.054	9.038	32.087	1.000	19.82
ATOM	2180	CA	MET	A	287	9.326	8.294	32.047	1.000	18.04
ATOM	2181	CB	MET	A	287	9.579	7.694	30.679	1.000	19.24
ATOM	2182	CG	MET	A	287	8.566	6.647	30.239	1.000	24.10
ATOM	2183	SD	MET	A	287	8.699	5.134	31.234	1.000	32.12

**FIGURE 48**

ATOM	2184	CE	MET	A	287	7.526	5.570	32.521	1.000	32.04
ATOM	2185	C	MET	A	287	10.457	9.247	32.459	1.000	32.08
ATOM	2186	O	MET	A	287	10.732	10.211	31.741	1.000	32.41
ATOM	2187	N	VAL	A	288	11.071	8.981	33.599	1.000	29.73
ATOM	2188	CA	VAL	A	288	12.024	9.837	34.294	1.000	22.00
ATOM	2189	CB	VAL	A	288	13.229	10.233	33.436	1.000	21.06
ATOM	2190	CG1	VAL	A	288	14.167	11.132	34.232	1.000	28.71
ATOM	2191	CG2	VAL	A	288	13.961	8.986	32.952	1.000	15.73
ATOM	2192	C	VAL	A	288	11.269	11.073	34.787	1.000	30.61
ATOM	2193	O	VAL	A	288	11.226	12.112	34.132	1.000	31.06
ATOM	2194	N	GLN	A	289	10.675	10.871	35.957	1.000	23.90
ATOM	2195	CA	GLN	A	289	9.626	11.709	36.494	1.000	28.48
ATOM	2196	CB	GLN	A	289	8.735	10.869	37.427	1.000	27.94
ATOM	2197	CG	GLN	A	289	7.406	11.535	37.748	1.000	34.50
ATOM	2198	CD	GLN	A	289	6.481	10.661	38.562	1.000	30.01
ATOM	2199	OE1	GLN	A	289	6.907	9.646	39.112	1.000	45.90
ATOM	2200	NE2	GLN	A	289	5.209	11.026	38.655	1.000	37.56
ATOM	2201	C	GLN	A	289	10.123	12.924	37.258	1.000	36.20
ATOM	2202	O	GLN	A	289	9.316	13.811	37.536	1.000	32.67
ATOM	2203	N	THR	A	290	11.402	12.994	37.619	1.000	33.43
ATOM	2204	CA	THR	A	290	11.857	14.147	38.382	1.000	32.24
ATOM	2205	CB	THR	A	290	12.078	13.862	39.878	1.000	27.63
ATOM	2206	OG1	THR	A	290	13.285	13.106	40.043	1.000	42.04
ATOM	2207	CG2	THR	A	290	10.951	13.021	40.456	1.000	35.76
ATOM	2208	C	THR	A	290	13.174	14.677	37.822	1.000	42.79
ATOM	2209	O	THR	A	290	13.921	13.935	37.191	1.000	31.85
ATOM	2210	N	GLU	A	291	13.421	15.963	38.072	1.000	41.73
ATOM	2211	CA	GLU	A	291	14.707	16.538	37.692	1.000	33.95
ATOM	2212	CB	GLU	A	291	14.749	18.032	37.980	1.000	44.06
ATOM	2213	CG	GLU	A	291	16.167	18.595	38.042	1.000	51.27
ATOM	2214	CD	GLU	A	291	16.146	20.001	38.627	1.000	50.92
ATOM	2215	OE1	GLU	A	291	16.994	20.298	39.487	1.000	46.66
ATOM	2216	OE2	GLU	A	291	15.255	20.769	38.205	1.000	44.79
ATOM	2217	C	GLU	A	291	15.814	15.826	38.461	1.000	26.05
ATOM	2218	O	GLU	A	291	16.890	15.581	37.921	1.000	31.12
ATOM	2219	N	CYS	A	292	15.513	15.486	39.714	1.000	27.69
ATOM	2220	CA	CYS	A	292	16.460	14.750	40.550	1.000	22.15
ATOM	2221	CB	CYS	A	292	15.840	14.409	41.899	1.000	28.25
ATOM	2222	SG	CYS	A	292	16.996	13.623	43.050	1.000	68.90
ATOM	2223	C	CYS	A	292	16.908	13.477	39.849	1.000	29.87
ATOM	2224	O	CYS	A	292	18.079	13.092	39.819	1.000	32.69
ATOM	2225	N	GLN	A	293	15.924	12.801	39.246	1.000	28.10
ATOM	2226	CA	GLN	A	293	16.294	11.621	38.459	1.000	28.74
ATOM	2227	CB	GLN	A	293	15.030	10.845	38.087	1.000	25.18
ATOM	2228	CG	GLN	A	293	14.509	10.017	39.250	1.000	22.15
ATOM	2229	CD	GLN	A	293	13.034	9.698	39.089	1.000	27.52
ATOM	2230	OE1	GLN	A	293	12.412	10.175	38.141	1.000	28.92
ATOM	2231	NE2	GLN	A	293	12.503	8.909	40.009	1.000	24.69
ATOM	2232	C	GLN	A	293	17.097	12.037	37.235	1.000	29.57
ATOM	2233	O	GLN	A	293	18.056	11.373	36.831	1.000	25.56
ATOM	2234	N	TYR	A	294	16.706	13.165	36.640	1.000	27.49
ATOM	2235	CA	TYR	A	294	17.399	13.690	35.469	1.000	28.60

**FIGURE 49**

ATOM	2236	CB	TYR	A	294	16.667	14.921	34.934	1.000	26.37
ATOM	2237	CG	TYR	A	294	17.095	15.300	33.540	1.000	27.25
ATOM	2238	CD1	TYR	A	294	16.934	14.379	32.509	1.000	37.08
ATOM	2239	CE1	TYR	A	294	17.311	14.682	31.218	1.000	37.31
ATOM	2240	CZ	TYR	A	294	17.861	15.920	30.951	1.000	39.27
ATOM	2241	OH	TYR	A	294	18.234	16.214	29.659	1.000	43.06
ATOM	2242	CE2	TYR	A	294	18.030	16.846	31.957	1.000	36.04
ATOM	2243	CD2	TYR	A	294	17.648	16.535	33.252	1.000	28.82
ATOM	2244	C	TYR	A	294	18.844	14.045	35.798	1.000	26.82
ATOM	2245	O	TYR	A	294	19.783	13.828	35.040	1.000	34.04
ATOM	2246	N	VAL	A	295	19.062	14.611	36.978	1.000	22.51
ATOM	2247	CA	VAL	A	295	20.439	14.894	37.384	1.000	32.33
ATOM	2248	CB	VAL	A	295	20.466	15.733	38.675	1.000	34.92
ATOM	2249	CG1	VAL	A	295	21.858	15.698	39.282	1.000	36.74
ATOM	2250	CG2	VAL	A	295	20.006	17.152	38.372	1.000	28.93
ATOM	2251	C	VAL	A	295	21.228	13.612	37.608	1.000	27.09
ATOM	2252	O	VAL	A	295	22.364	13.460	37.153	1.000	34.90
ATOM	2253	N	TYR	A	296	20.606	12.678	38.319	1.000	26.27
ATOM	2254	CA	TYR	A	296	21.232	11.378	38.578	1.000	29.32
ATOM	2255	CB	TYR	A	296	20.229	10.492	39.314	1.000	28.67
ATOM	2256	CG	TYR	A	296	20.761	9.196	39.861	1.000	35.66
ATOM	2257	CD1	TYR	A	296	21.638	9.150	40.937	1.000	33.98
ATOM	2258	CE1	TYR	A	296	22.119	7.951	41.431	1.000	32.73
ATOM	2259	CZ	TYR	A	296	21.722	6.770	40.842	1.000	33.73
ATOM	2260	OH	TYR	A	296	22.187	5.561	41.318	1.000	35.73
ATOM	2261	CE2	TYR	A	296	20.853	6.786	39.775	1.000	33.85
ATOM	2262	CD2	TYR	A	296	20.376	7.987	39.290	1.000	37.49
ATOM	2263	C	TYR	A	296	21.742	10.739	37.295	1.000	27.66
ATOM	2264	O	TYR	A	296	22.831	10.150	37.266	1.000	32.42
ATOM	2265	N	LEU	A	297	21.015	10.840	36.184	1.000	26.94
ATOM	2266	CA	LEU	A	297	21.497	10.174	34.968	1.000	28.80
ATOM	2267	CB	LEU	A	297	20.459	10.187	33.846	1.000	24.99
ATOM	2268	CG	LEU	A	297	19.141	9.462	34.135	1.000	24.86
ATOM	2269	CD1	LEU	A	297	18.119	9.734	33.046	1.000	23.89
ATOM	2270	CD2	LEU	A	297	19.357	7.966	34.270	1.000	20.37
ATOM	2271	C	LEU	A	297	22.795	10.820	34.495	1.000	33.04
ATOM	2272	O	LEU	A	297	23.704	10.129	34.036	1.000	49.72
ATOM	2273	N	HIS	A	298	22.879	12.139	34.606	1.000	31.51
ATOM	2274	CA	HIS	A	298	24.115	12.850	34.291	1.000	35.13
ATOM	2275	CB	HIS	A	298	23.871	14.358	34.261	1.000	40.34
ATOM	2276	CG	HIS	A	298	22.964	14.791	33.153	1.000	37.19
ATOM	2277	ND1	HIS	A	298	21.598	14.646	33.222	1.000	31.89
ATOM	2278	CE1	HIS	A	298	21.052	15.109	32.108	1.000	37.29
ATOM	2279	NE2	HIS	A	298	22.021	15.545	31.322	1.000	38.18
ATOM	2280	CD2	HIS	A	298	23.228	15.356	31.954	1.000	36.75
ATOM	2281	C	HIS	A	298	25.202	12.524	35.310	1.000	29.73
ATOM	2282	O	HIS	A	298	26.358	12.314	34.945	1.000	36.94
ATOM	2283	N	GLN	A	299	24.848	12.470	36.599	1.000	26.95
ATOM	2284	CA	GLN	A	299	25.880	12.104	37.579	1.000	34.87
ATOM	2285	CB	GLN	A	299	25.339	12.184	39.001	1.000	34.33
ATOM	2286	CG	GLN	A	299	24.925	13.584	39.424	1.000	44.04
ATOM	2287	CD	GLN	A	299	24.110	13.598	40.702	1.000	49.76

FIGURE 50

ATOM	2288	OE1	GLN	A	299	23.289	12.715	40.953	1.000	45.00
ATOM	2289	NE2	GLN	A	299	24.315	14.612	41.540	1.000	34.03
ATOM	2290	C	GLN	A	299	26.425	10.712	37.267	1.000	42.34
ATOM	2291	O	GLN	A	299	27.602	10.424	37.494	1.000	36.30
ATOM	2292	N	CYS	A	300	25.565	9.845	36.732	1.000	40.53
ATOM	2293	CA	CYS	A	300	25.967	8.486	36.389	1.000	34.21
ATOM	2294	CB	CYS	A	300	24.743	7.622	36.058	1.000	28.55
ATOM	2295	SG	CYS	A	300	23.923	6.884	37.493	1.000	33.04
ATOM	2296	C	CYS	A	300	26.937	8.476	35.217	1.000	34.71
ATOM	2297	O	CYS	A	300	27.937	7.754	35.210	1.000	29.76
ATOM	2298	N	VAL	A	301	26.651	9.279	34.193	1.000	43.45
ATOM	2299	CA	VAL	A	301	27.534	9.265	33.021	1.000	48.01
ATOM	2300	CB	VAL	A	301	26.875	9.944	31.809	1.000	44.81
ATOM	2301	CG1	VAL	A	301	27.860	10.046	30.650	1.000	34.28
ATOM	2302	CG2	VAL	A	301	25.626	9.187	31.372	1.000	34.53
ATOM	2303	C	VAL	A	301	28.865	9.935	33.351	1.000	51.69
ATOM	2304	O	VAL	A	301	29.937	9.511	32.918	1.000	43.92
ATOM	2305	N	ARG	A	302	28.808	11.008	34.140	1.000	49.27
ATOM	2306	CA	ARG	A	302	30.013	11.730	34.519	1.000	45.50
ATOM	2307	CB	ARG	A	302	29.670	12.984	35.328	1.000	43.11
ATOM	2308	CG	ARG	A	302	30.898	13.642	35.952	1.000	44.65
ATOM	2309	CD	ARG	A	302	30.517	14.426	37.200	1.000	42.63
ATOM	2310	NE	ARG	A	302	30.239	13.510	38.308	1.000	45.99
ATOM	2311	CZ	ARG	A	302	29.458	13.803	39.336	1.000	50.62
ATOM	2312	NH1	ARG	A	302	28.871	14.992	39.398	1.000	51.05
ATOM	2313	NH2	ARG	A	302	29.264	12.909	40.297	1.000	48.05
ATOM	2314	C	ARG	A	302	30.955	10.852	35.332	1.000	44.54
ATOM	2315	O	ARG	A	302	32.162	10.831	35.095	1.000	56.02
ATOM	2316	N	ASP	A	303	30.409	10.124	36.305	1.000	44.54
ATOM	2317	CA	ASP	A	303	31.292	9.270	37.105	1.000	43.81
ATOM	2318	CB	ASP	A	303	30.542	8.705	38.312	1.000	34.49
ATOM	2319	CG	ASP	A	303	30.053	9.823	39.215	1.000	37.57
ATOM	2320	OD1	ASP	A	303	30.540	10.963	39.057	1.000	52.86
ATOM	2321	OD2	ASP	A	303	29.183	9.594	40.078	1.000	46.64
ATOM	2322	C	ASP	A	303	31.889	8.163	36.248	1.000	48.14
ATOM	2323	O	ASP	A	303	33.015	7.724	36.489	1.000	65.82
ATOM	2324	N	VAL	A	304	31.151	7.703	35.241	1.000	50.71
ATOM	2325	CA	VAL	A	304	31.668	6.631	34.389	1.000	49.88
ATOM	2326	CB	VAL	A	304	30.541	5.917	33.628	1.000	51.23
ATOM	2327	CG1	VAL	A	304	30.871	5.761	32.150	1.000	50.73
ATOM	2328	CG2	VAL	A	304	30.277	4.561	34.263	1.000	34.30
ATOM	2329	C	VAL	A	304	32.697	7.175	33.404	1.000	41.63
ATOM	2330	O	VAL	A	304	33.656	6.498	33.037	1.000	41.23
ATOM	2331	N	LEU	A	305	32.489	8.413	32.981	1.000	46.33
ATOM	2332	CA	LEU	A	305	33.442	9.091	32.106	1.000	57.09
ATOM	2333	CB	LEU	A	305	32.783	10.338	31.507	1.000	52.07
ATOM	2334	CG	LEU	A	305	31.872	10.008	30.314	1.000	47.93
ATOM	2335	CD1	LEU	A	305	31.630	11.216	29.427	1.000	48.09
ATOM	2336	CD2	LEU	A	305	32.488	8.860	29.529	1.000	30.69
ATOM	2337	C	LEU	A	305	34.728	9.439	32.849	1.000	64.87
ATOM	2338	O	LEU	A	305	35.814	9.387	32.266	1.000	58.87
ATOM	2339	N	ARG	A	306	34.601	9.776	34.127	1.000	68.65

**FIGURE 51**

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Three Dimensional Coordinates of HPTPbeta

ATOM	2340	CA	ARG	A	306	35.714	10.014	35.032	1.000	66.90
ATOM	2341	CB	ARG	A	306	35.210	10.407	36.420	1.000	62.97
ATOM	2342	CG	ARG	A	306	34.909	11.889	36.584	1.000	63.46
ATOM	2343	CD	ARG	A	306	34.233	12.132	37.927	1.000	63.67
ATOM	2344	NE	ARG	A	306	33.867	13.537	38.091	1.000	72.26
ATOM	2345	CZ	ARG	A	306	33.178	13.982	39.131	1.000	81.44
ATOM	2346	NH1	ARG	A	306	32.786	13.132	40.074	1.000	88.77
ATOM	2347	NH2	ARG	A	306	32.874	15.266	39.234	1.000	94.65
ATOM	2348	C	ARG	A	306	36.601	8.773	35.157	1.000	69.05
ATOM	2349	O	ARG	A	306	37.722	8.751	34.650	1.000	60.08
ATOM	2350	N	ALA	A	307	36.073	7.760	35.834	1.000	70.13
ATOM	2351	CA	ALA	A	307	36.735	6.475	36.013	1.000	72.89
ATOM	2352	CB	ALA	A	307	35.766	5.449	36.576	1.000	79.56
ATOM	2353	C	ALA	A	307	37.324	5.984	34.694	1.000	75.87
ATOM	2354	O	ALA	A	307	38.449	5.491	34.642	1.000	86.48
ATOM	2355	N	ARG	A	308	36.535	6.146	33.635	1.000	72.53
ATOM	2356	CA	ARG	A	308	36.980	5.843	32.285	1.000	71.87
ATOM	2357	CB	ARG	A	308	35.954	6.318	31.260	1.000	72.41
ATOM	2358	CG	ARG	A	308	35.892	5.489	29.991	1.000	75.31
ATOM	2359	CD	ARG	A	308	34.468	5.480	29.453	1.000	81.76
ATOM	2360	NE	ARG	A	308	34.286	4.508	28.381	1.000	82.26
ATOM	2361	CZ	ARG	A	308	33.963	4.835	27.136	1.000	81.15
ATOM	2362	NH1	ARG	A	308	33.794	6.106	26.802	1.000	66.44
ATOM	2363	NH2	ARG	A	308	33.818	3.879	26.222	1.000	98.94
ATOM	2364	C	ARG	A	308	38.316	6.522	31.997	1.000	79.31
ATOM	2365	O	ARG	A	308	39.323	6.227	32.636	1.000	93.34
ATOM	2366	N	LYS	A	309	38.277	7.433	31.039	1.000	83.39
ATOM	2367	CA	LYS	A	309	39.434	8.214	30.626	1.000	85.77
ATOM	2368	CB	LYS	A	309	39.029	9.196	29.532	1.000	85.52
ATOM	2369	CG	LYS	A	309	37.652	8.903	28.934	1.000	85.90
ATOM	2370	CD	LYS	A	309	36.903	10.189	28.611	1.000	87.13
ATOM	2371	CE	LYS	A	309	37.828	11.241	28.041	1.000	90.18
ATOM	2372	NZ	LYS	A	309	37.294	11.834	26.782	1.000	95.87
ATOM	2373	C	LYS	A	309	40.045	8.948	31.819	1.000	88.05
ATOM	2374	O	LYS	A	309	39.829	10.143	32.007	1.000	83.82
ATOM	2375	N	LEU	A	310	40.812	8.199	32.602	1.000	91.25
ATOM	2376	CA	LEU	A	310	41.488	8.642	33.803	1.000	89.65
ATOM	2377	CB	LEU	A	310	40.575	8.511	35.031	1.000	89.61
ATOM	2378	CG	LEU	A	310	41.209	8.874	36.375	1.000	91.78
ATOM	2379	CD1	LEU	A	310	41.928	10.213	36.280	1.000	97.42
ATOM	2380	CD2	LEU	A	310	40.167	8.896	37.476	1.000	97.23
ATOM	2381	C	LEU	A	310	42.772	7.848	34.034	1.000	88.08
ATOM	2382	O	LEU	A	310	42.708	6.719	34.516	1.000	91.11
ATOM	2383	N	LYS	B	19	45.803	11.373	51.943	1.000	103.56
ATOM	2384	CA	LYS	B	19	45.533	10.011	51.483	1.000	77.94
ATOM	2385	CB	LYS	B	19	46.473	9.008	52.147	1.000	82.60
ATOM	2386	CG	LYS	B	19	46.882	7.835	51.255	1.000	87.87
ATOM	2387	CD	LYS	B	19	48.286	7.354	51.584	1.000	91.26
ATOM	2388	CE	LYS	B	19	49.120	7.117	50.329	1.000	90.51
ATOM	2389	NZ	LYS	B	19	50.584	7.099	50.628	1.000	76.07
ATOM	2390	C	LYS	B	19	44.082	9.614	51.751	1.000	64.77
ATOM	2391	O	LYS	B	19	43.153	10.321	51.368	1.000	54.90

**FIGURE 52**



ATOM	2392	N	THR	B	20	43.927	8.473	52.402	1.000	58.60
ATOM	2393	CA	THR	B	20	42.644	7.870	52.709	1.000	50.23
ATOM	2394	CB	THR	B	20	42.853	6.643	53.618	1.000	48.19
ATOM	2395	OG1	THR	B	20	41.626	6.256	54.241	1.000	67.26
ATOM	2396	CG2	THR	B	20	43.824	6.994	54.737	1.000	41.73
ATOM	2397	C	THR	B	20	41.695	8.862	53.376	1.000	54.14
ATOM	2398	O	THR	B	20	42.126	9.839	53.992	1.000	48.50
ATOM	2399	N	SER	B	21	40.407	8.579	53.235	1.000	57.41
ATOM	2400	CA	SER	B	21	39.308	9.335	53.812	1.000	54.62
ATOM	2401	CB	SER	B	21	39.008	10.562	52.951	1.000	57.73
ATOM	2402	OG	SER	B	21	38.000	10.316	51.989	1.000	61.68
ATOM	2403	C	SER	B	21	38.071	8.452	53.980	1.000	51.70
ATOM	2404	O	SER	B	21	38.044	7.306	53.523	1.000	45.33
ATOM	2405	N	CYS	B	22	37.038	8.961	54.640	1.000	48.54
ATOM	2406	CA	CYS	B	22	35.824	8.195	54.908	1.000	41.60
ATOM	2407	CB	CYS	B	22	35.884	7.524	56.281	1.000	46.98
ATOM	2408	SG	CYS	B	22	36.813	5.974	56.365	1.000	93.30
ATOM	2409	C	CYS	B	22	34.590	9.082	54.851	1.000	38.62
ATOM	2410	O	CYS	B	22	34.027	9.443	55.887	1.000	49.86
ATOM	2411	N	PRO	B	23	34.143	9.447	53.659	1.000	47.14
ATOM	2412	CA	PRO	B	23	32.954	10.304	53.566	1.000	56.35
ATOM	2413	CB	PRO	B	23	32.868	10.652	52.085	1.000	55.14
ATOM	2414	CG	PRO	B	23	34.157	10.216	51.473	1.000	48.26
ATOM	2415	CD	PRO	B	23	34.680	9.104	52.334	1.000	45.23
ATOM	2416	C	PRO	B	23	31.720	9.529	54.021	1.000	59.08
ATOM	2417	O	PRO	B	23	31.566	8.358	53.677	1.000	63.26
ATOM	2418	N	ILE	B	24	30.856	10.175	54.800	1.000	57.72
ATOM	2419	CA	ILE	B	24	29.645	9.515	55.274	1.000	57.66
ATOM	2420	CB	ILE	B	24	29.730	9.129	56.761	1.000	61.40
ATOM	2421	CG1	ILE	B	24	30.656	7.951	57.048	1.000	63.99
ATOM	2422	CD1	ILE	B	24	31.645	8.269	58.170	1.000	72.75
ATOM	2423	CG2	ILE	B	24	28.346	8.849	57.336	1.000	55.60
ATOM	2424	C	ILE	B	24	28.423	10.404	55.073	1.000	56.32
ATOM	2425	O	ILE	B	24	28.463	11.607	55.319	1.000	56.42
ATOM	2426	N	LYS	B	25	27.336	9.790	54.618	1.000	60.08
ATOM	2427	CA	LYS	B	25	26.083	10.506	54.431	1.000	69.15
ATOM	2428	CB	LYS	B	25	24.998	9.583	53.874	1.000	82.75
ATOM	2429	CG	LYS	B	25	25.033	9.350	52.369	1.000	85.99
ATOM	2430	CD	LYS	B	25	24.777	7.874	52.048	1.000	85.92
ATOM	2431	CE	LYS	B	25	26.083	7.172	51.689	1.000	85.44
ATOM	2432	NZ	LYS	B	25	26.510	7.499	50.285	1.000	80.54
ATOM	2433	C	LYS	B	25	25.604	11.112	55.747	1.000	63.20
ATOM	2434	O	LYS	B	25	25.591	10.438	56.783	1.000	50.64
ATOM	2435	N	ILE	B	26	25.195	12.378	55.680	1.000	54.67
ATOM	2436	CA	ILE	B	26	24.670	13.059	56.860	1.000	55.87
ATOM	2437	CB	ILE	B	26	24.575	14.581	56.678	1.000	58.65
ATOM	2438	CG1	ILE	B	26	23.569	15.042	55.620	1.000	60.19
ATOM	2439	CD1	ILE	B	26	23.370	16.547	55.610	1.000	57.06
ATOM	2440	CG2	ILE	B	26	25.953	15.157	56.389	1.000	63.31
ATOM	2441	C	ILE	B	26	23.291	12.498	57.214	1.000	58.06
ATOM	2442	O	ILE	B	26	22.810	12.724	58.319	1.000	56.98
ATOM	2443	N	ASN	B	27	22.730	11.784	56.260	1.000	61.16

FIGURE 53

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ATOM	2444	CA	ASN	B	27	21.489	11.049	56.299	1.000	59.75
ATOM	2445	CB	ASN	B	27	21.008	10.743	54.876	1.000	63.07
ATOM	2446	CG	ASN	B	27	20.656	12.000	54.106	1.000	65.31
ATOM	2447	OD1	ASN	B	27	20.305	11.913	52.930	1.000	50.97
ATOM	2448	ND2	ASN	B	27	20.748	13.143	54.774	1.000	75.32
ATOM	2449	C	ASN	B	27	21.632	9.724	57.040	1.000	57.11
ATOM	2450	O	ASN	B	27	20.646	9.183	57.534	1.000	57.56
ATOM	2451	N	GLN	B	28	22.856	9.217	57.094	1.000	57.63
ATOM	2452	CA	GLN	B	28	23.130	7.930	57.717	1.000	56.91
ATOM	2453	CB	GLN	B	28	23.761	6.988	56.678	1.000	64.21
ATOM	2454	CG	GLN	B	28	24.000	5.578	57.192	1.000	66.30
ATOM	2455	CD	GLN	B	28	22.771	4.698	57.075	1.000	70.95
ATOM	2456	OE1	GLN	B	28	22.005	4.829	56.119	1.000	74.56
ATOM	2457	NE2	GLN	B	28	22.580	3.801	58.039	1.000	63.57
ATOM	2458	C	GLN	B	28	24.053	8.043	58.917	1.000	44.81
ATOM	2459	O	GLN	B	28	24.358	7.034	59.556	1.000	48.39
ATOM	2460	N	PHE	B	29	24.526	9.244	59.241	1.000	46.88
ATOM	2461	CA	PHE	B	29	25.544	9.393	60.273	1.000	36.76
ATOM	2462	CB	PHE	B	29	25.849	10.882	60.532	1.000	43.65
ATOM	2463	CG	PHE	B	29	27.092	11.033	61.384	1.000	41.38
ATOM	2464	CD1	PHE	B	29	28.348	10.939	60.813	1.000	39.51
ATOM	2465	CE1	PHE	B	29	29.493	11.073	61.579	1.000	39.09
ATOM	2466	CZ	PHE	B	29	29.383	11.303	62.933	1.000	38.33
ATOM	2467	CE2	PHE	B	29	28.131	11.392	63.518	1.000	42.37
ATOM	2468	CD2	PHE	B	29	26.995	11.257	62.747	1.000	38.83
ATOM	2469	C	PHE	B	29	25.186	8.747	61.601	1.000	37.74
ATOM	2470	O	PHE	B	29	26.032	8.087	62.213	1.000	43.72
ATOM	2471	N	GLU	B	30	23.960	8.933	62.080	1.000	45.93
ATOM	2472	CA	GLU	B	30	23.554	8.292	63.331	1.000	49.96
ATOM	2473	CB	GLU	B	30	22.082	8.589	63.614	1.000	61.18
ATOM	2474	CG	GLU	B	30	21.655	8.277	65.041	1.000	72.30
ATOM	2475	CD	GLU	B	30	22.517	8.965	66.069	1.000	84.23
ATOM	2476	OE1	GLU	B	30	23.748	8.742	66.082	1.000	104.41
ATOM	2477	OE2	GLU	B	30	21.962	9.740	66.892	1.000	90.78
ATOM	2478	C	GLU	B	30	23.801	6.785	63.292	1.000	53.76
ATOM	2479	O	GLU	B	30	24.396	6.207	64.208	1.000	40.13
ATOM	2480	N	GLY	B	31	23.348	6.160	62.207	1.000	50.11
ATOM	2481	CA	GLY	B	31	23.552	4.743	61.979	1.000	39.81
ATOM	2482	C	GLY	B	31	25.024	4.352	61.975	1.000	42.21
ATOM	2483	O	GLY	B	31	25.429	3.569	62.841	1.000	48.72
ATOM	2484	N	HIS	B	32	25.786	4.891	61.027	1.000	44.34
ATOM	2485	CA	HIS	B	32	27.227	4.682	60.898	1.000	44.47
ATOM	2486	CB	HIS	B	32	27.848	5.622	59.865	1.000	46.08
ATOM	2487	CG	HIS	B	32	29.339	5.758	59.929	1.000	57.10
ATOM	2488	ND1	HIS	B	32	30.199	4.924	59.241	1.000	54.47
ATOM	2489	CE1	HIS	B	32	31.451	5.291	59.477	1.000	52.58
ATOM	2490	NE2	HIS	B	32	31.440	6.328	60.296	1.000	49.52
ATOM	2491	CD2	HIS	B	32	30.140	6.650	60.573	1.000	56.38
ATOM	2492	C	HIS	B	32	27.916	4.872	62.244	1.000	43.34
ATOM	2493	O	HIS	B	32	28.702	4.051	62.710	1.000	44.29
ATOM	2494	N	PHE	B	33	27.608	6.001	62.884	1.000	42.64
ATOM	2495	CA	PHE	B	33	28.186	6.230	64.209	1.000	46.60

**FIGURE 54**

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ATOM	2496	CB	PHE	B	33	27.794	7.621	64.705	1.000	45.66
ATOM	2497	CG	PHE	B	33	28.411	8.010	66.024	1.000	41.60
ATOM	2498	CD1	PHE	B	33	29.639	7.503	66.418	1.000	28.55
ATOM	2499	CE1	PHE	B	33	30.180	7.856	67.635	1.000	34.17
ATOM	2500	CZ	PHE	B	33	29.502	8.729	68.464	1.000	39.16
ATOM	2501	CE2	PHE	B	33	28.282	9.249	68.088	1.000	40.43
ATOM	2502	CD2	PHE	B	33	27.743	8.885	66.871	1.000	46.28
ATOM	2503	C	PHE	B	33	27.742	5.122	65.157	1.000	49.56
ATOM	2504	O	PHE	B	33	28.543	4.568	65.918	1.000	39.50
ATOM	2505	N	MET	B	34	26.451	4.782	65.110	1.000	53.61
ATOM	2506	CA	MET	B	34	25.979	3.673	65.946	1.000	51.72
ATOM	2507	CB	MET	B	34	24.456	3.545	65.882	1.000	51.72
ATOM	2508	CG	MET	B	34	23.750	4.565	66.777	1.000	52.01
ATOM	2509	SD	MET	B	34	22.105	4.050	67.305	1.000	72.48
ATOM	2510	CE	MET	B	34	21.721	2.817	66.063	1.000	45.79
ATOM	2511	C	MET	B	34	26.671	2.377	65.554	1.000	52.65
ATOM	2512	O	MET	B	34	27.064	1.601	66.433	1.000	63.08
ATOM	2513	N	LYS	B	35	26.862	2.114	64.258	1.000	52.00
ATOM	2514	CA	LYS	B	35	27.584	0.889	63.905	1.000	54.31
ATOM	2515	CB	LYS	B	35	27.570	0.627	62.402	1.000	59.44
ATOM	2516	CG	LYS	B	35	26.633	1.515	61.614	1.000	66.12
ATOM	2517	CD	LYS	B	35	26.520	1.074	60.166	1.000	69.40
ATOM	2518	CE	LYS	B	35	25.639	2.012	59.351	1.000	62.69
ATOM	2519	NZ	LYS	B	35	26.251	2.293	58.019	1.000	48.67
ATOM	2520	C	LYS	B	35	29.028	0.951	64.404	1.000	56.64
ATOM	2521	O	LYS	B	35	29.607	-0.094	64.699	1.000	47.38
ATOM	2522	N	LEU	B	36	29.564	2.163	64.485	1.000	61.24
ATOM	2523	CA	LEU	B	36	30.933	2.424	64.902	1.000	59.97
ATOM	2524	CB	LEU	B	36	31.323	3.874	64.594	1.000	64.56
ATOM	2525	CG	LEU	B	36	32.434	4.056	63.557	1.000	65.01
ATOM	2526	CD1	LEU	B	36	32.294	3.032	62.440	1.000	65.86
ATOM	2527	CD2	LEU	B	36	32.421	5.477	63.006	1.000	46.61
ATOM	2528	C	LEU	B	36	31.155	2.157	66.385	1.000	58.41
ATOM	2529	O	LEU	B	36	32.238	1.731	66.790	1.000	42.70
ATOM	2530	N	GLN	B	37	30.143	2.412	67.207	1.000	64.59
ATOM	2531	CA	GLN	B	37	30.253	2.093	68.627	1.000	66.89
ATOM	2532	CB	GLN	B	37	29.379	3.009	69.479	1.000	65.39
ATOM	2533	CG	GLN	B	37	29.268	4.435	68.963	1.000	71.01
ATOM	2534	CD	GLN	B	37	29.402	5.459	70.075	1.000	69.30
ATOM	2535	OE1	GLN	B	37	28.554	6.349	70.194	1.000	65.62
ATOM	2536	NE2	GLN	B	37	30.448	5.336	70.883	1.000	67.63
ATOM	2537	C	GLN	B	37	29.858	0.639	68.887	1.000	64.12
ATOM	2538	O	GLN	B	37	30.133	0.109	69.965	1.000	61.41
ATOM	2539	N	ALA	B	38	29.211	0.013	67.912	1.000	61.52
ATOM	2540	CA	ALA	B	38	28.752	-1.364	68.068	1.000	61.79
ATOM	2541	CB	ALA	B	38	27.973	-1.811	66.843	1.000	61.12
ATOM	2542	C	ALA	B	38	29.924	-2.304	68.328	1.000	71.64
ATOM	2543	O	ALA	B	38	31.070	-1.992	68.000	1.000	88.33
ATOM	2544	N	ASP	B	39	29.627	-3.453	68.927	1.000	75.20
ATOM	2545	CA	ASP	B	39	30.678	-4.382	69.332	1.000	79.52
ATOM	2546	CB	ASP	B	39	31.399	-4.960	68.119	1.000	83.70
ATOM	2547	CG	ASP	B	39	31.928	-6.362	68.329	1.000	85.54

**FIGURE 55**

ATOM	2548	OD1	ASP	B	39	33.151	-6.572	68.165	1.000	77.07
ATOM	2549	OD2	ASP	B	39	31.125	-7.261	68.656	1.000	94.95
ATOM	2550	C	ASP	B	39	31.654	-3.661	70.262	1.000	80.16
ATOM	2551	O	ASP	B	39	32.866	-3.844	70.171	1.000	82.76
ATOM	2552	N	SER	B	40	31.091	-2.847	71.149	1.000	80.57
ATOM	2553	CA	SER	B	40	31.845	-2.060	72.117	1.000	88.50
ATOM	2554	CB	SER	B	40	32.474	-2.960	73.184	1.000	94.68
ATOM	2555	OG	SER	B	40	32.154	-2.503	74.493	1.000	104.32
ATOM	2556	C	SER	B	40	32.923	-1.227	71.430	1.000	88.12
ATOM	2557	O	SER	B	40	34.120	-1.492	71.558	1.000	101.21
ATOM	2558	N	ASN	B	41	32.493	-0.212	70.685	1.000	79.40
ATOM	2559	CA	ASN	B	41	33.401	0.680	69.978	1.000	77.46
ATOM	2560	CB	ASN	B	41	34.193	1.538	70.973	1.000	73.13
ATOM	2561	CG	ASN	B	41	33.910	3.013	70.761	1.000	66.31
ATOM	2562	OD1	ASN	B	41	32.852	3.359	70.237	1.000	66.52
ATOM	2563	ND2	ASN	B	41	34.853	3.853	71.161	1.000	67.42
ATOM	2564	C	ASN	B	41	34.370	-0.080	69.091	1.000	78.31
ATOM	2565	O	ASN	B	41	35.499	0.345	68.837	1.000	79.80
ATOM	2566	N	TYR	B	42	33.919	-1.239	68.605	1.000	74.28
ATOM	2567	CA	TYR	B	42	34.837	-2.034	67.800	1.000	72.73
ATOM	2568	CB	TYR	B	42	34.211	-3.377	67.423	1.000	73.56
ATOM	2569	CG	TYR	B	42	35.147	-4.228	66.588	1.000	73.21
ATOM	2570	CD1	TYR	B	42	36.311	-4.738	67.144	1.000	77.06
ATOM	2571	CE1	TYR	B	42	37.173	-5.514	66.388	1.000	78.96
ATOM	2572	CZ	TYR	B	42	36.872	-5.773	65.067	1.000	78.31
ATOM	2573	OH	TYR	B	42	37.729	-6.541	64.312	1.000	91.83
ATOM	2574	CE2	TYR	B	42	35.724	-5.272	64.492	1.000	73.89
ATOM	2575	CD2	TYR	B	42	34.868	-4.501	65.256	1.000	72.17
ATOM	2576	C	TYR	B	42	35.257	-1.247	66.561	1.000	64.17
ATOM	2577	O	TYR	B	42	36.414	-0.843	66.456	1.000	62.76
ATOM	2578	N	LEU	B	43	34.312	-1.041	65.653	1.000	59.26
ATOM	2579	CA	LEU	B	43	34.589	-0.428	64.362	1.000	59.76
ATOM	2580	CB	LEU	B	43	33.310	-0.304	63.528	1.000	63.25
ATOM	2581	CG	LEU	B	43	32.890	-1.570	62.775	1.000	63.42
ATOM	2582	CD1	LEU	B	43	31.436	-1.480	62.336	1.000	46.05
ATOM	2583	CD2	LEU	B	43	33.807	-1.812	61.585	1.000	76.10
ATOM	2584	C	LEU	B	43	35.252	0.932	64.522	1.000	54.62
ATOM	2585	O	LEU	B	43	36.208	1.237	63.810	1.000	53.46
ATOM	2586	N	LEU	B	44	34.760	1.742	65.454	1.000	56.15
ATOM	2587	CA	LEU	B	44	35.409	3.030	65.682	1.000	52.24
ATOM	2588	CB	LEU	B	44	34.729	3.785	66.826	1.000	48.36
ATOM	2589	CG	LEU	B	44	35.293	5.195	67.068	1.000	49.68
ATOM	2590	CD1	LEU	B	44	35.267	6.017	65.787	1.000	41.86
ATOM	2591	CD2	LEU	B	44	34.522	5.886	68.170	1.000	38.98
ATOM	2592	C	LEU	B	44	36.898	2.865	65.975	1.000	48.68
ATOM	2593	O	LEU	B	44	37.732	3.549	65.378	1.000	45.89
ATOM	2594	N	SER	B	45	37.242	1.962	66.882	1.000	49.23
ATOM	2595	CA	SER	B	45	38.619	1.713	67.282	1.000	39.06
ATOM	2596	CB	SER	B	45	38.690	0.436	68.127	1.000	39.80
ATOM	2597	OG	SER	B	45	39.247	0.727	69.398	1.000	49.93
ATOM	2598	C	SER	B	45	39.558	1.552	66.098	1.000	45.56
ATOM	2599	O	SER	B	45	40.668	2.082	66.083	1.000	52.78

FIGURE 56

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ATOM	2600	N	LYS	B	46	39.087	0.795	65.113	1.000	51.54
ATOM	2601	CA	LYS	B	46	39.891	0.470	63.941	1.000	63.73
ATOM	2602	CB	LYS	B	46	39.189	-0.575	63.073	1.000	74.89
ATOM	2603	CG	LYS	B	46	39.589	-2.009	63.395	1.000	86.82
ATOM	2604	CD	LYS	B	46	39.920	-2.808	62.129	1.000	98.47
ATOM	2605	CE	LYS	B	46	40.285	-4.250	62.467	1.000	105.16
ATOM	2606	NZ	LYS	B	46	39.701	-5.221	61.446	1.000	118.97
ATOM	2607	C	LYS	B	46	40.196	1.720	63.115	1.000	64.75
ATOM	2608	O	LYS	B	46	41.369	2.039	62.917	1.000	80.74
ATOM	2609	N	GLU	B	47	39.144	2.386	62.661	1.000	60.32
ATOM	2610	CA	GLU	B	47	39.214	3.608	61.876	1.000	57.31
ATOM	2611	CB	GLU	B	47	37.861	4.317	61.829	1.000	59.96
ATOM	2612	CG	GLU	B	47	37.108	4.262	60.513	1.000	64.86
ATOM	2613	CD	GLU	B	47	36.069	5.368	60.394	1.000	62.05
ATOM	2614	OE1	GLU	B	47	35.086	5.213	59.637	1.000	43.75
ATOM	2615	OE2	GLU	B	47	36.243	6.408	61.066	1.000	56.16
ATOM	2616	C	GLU	B	47	40.261	4.566	62.445	1.000	52.08
ATOM	2617	O	GLU	B	47	40.973	5.207	61.673	1.000	46.49
ATOM	2618	N	TYR	B	48	40.331	4.643	63.772	1.000	51.35
ATOM	2619	CA	TYR	B	48	41.241	5.559	64.447	1.000	47.41
ATOM	2620	CB	TYR	B	48	40.768	5.841	65.876	1.000	43.35
ATOM	2621	CG	TYR	B	48	41.664	6.800	66.628	1.000	43.06
ATOM	2622	CD1	TYR	B	48	41.634	8.162	66.350	1.000	43.39
ATOM	2623	CE1	TYR	B	48	42.446	9.049	67.026	1.000	33.55
ATOM	2624	CZ	TYR	B	48	43.301	8.577	67.997	1.000	33.43
ATOM	2625	OH	TYR	B	48	44.109	9.457	68.675	1.000	39.28
ATOM	2626	CE2	TYR	B	48	43.357	7.232	68.299	1.000	35.45
ATOM	2627	CD2	TYR	B	48	42.538	6.354	67.609	1.000	39.88
ATOM	2628	C	TYR	B	48	42.666	5.026	64.486	1.000	44.84
ATOM	2629	O	TYR	B	48	43.636	5.779	64.556	1.000	38.45
ATOM	2630	N	GLU	B	49	42.798	3.704	64.448	1.000	45.22
ATOM	2631	CA	GLU	B	49	44.131	3.103	64.459	1.000	46.18
ATOM	2632	CB	GLU	B	49	44.027	1.636	64.889	1.000	60.64
ATOM	2633	CG	GLU	B	49	43.562	1.476	66.331	1.000	71.11
ATOM	2634	CD	GLU	B	49	44.096	2.572	67.234	1.000	79.66
ATOM	2635	OE1	GLU	B	49	43.360	2.978	68.161	1.000	77.35
ATOM	2636	OE2	GLU	B	49	45.242	3.035	67.029	1.000	85.01
ATOM	2637	C	GLU	B	49	44.790	3.234	63.097	1.000	39.20
ATOM	2638	O	GLU	B	49	46.009	3.355	62.975	1.000	46.67
ATOM	2639	N	GLU	B	50	43.971	3.230	62.044	1.000	35.49
ATOM	2640	CA	GLU	B	50	44.513	3.352	60.694	1.000	43.74
ATOM	2641	CB	GLU	B	50	43.412	3.174	59.644	1.000	53.39
ATOM	2642	CG	GLU	B	50	42.601	1.900	59.756	1.000	64.71
ATOM	2643	CD	GLU	B	50	41.686	1.654	58.577	1.000	72.97
ATOM	2644	OE1	GLU	B	50	41.888	0.646	57.858	1.000	85.76
ATOM	2645	OE2	GLU	B	50	40.752	2.456	58.346	1.000	70.73
ATOM	2646	C	GLU	B	50	45.205	4.698	60.485	1.000	41.38
ATOM	2647	O	GLU	B	50	45.975	4.860	59.534	1.000	49.75
ATOM	2648	N	LEU	B	51	44.932	5.664	61.354	1.000	32.56
ATOM	2649	CA	LEU	B	51	45.542	6.982	61.247	1.000	33.23
ATOM	2650	CB	LEU	B	51	44.611	8.073	61.767	1.000	28.37
ATOM	2651	CG	LEU	B	51	43.377	8.384	60.920	1.000	34.19

**FIGURE 57**

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ATOM	2652	CD1	LEU	B	51	42.246	8.901	61.799	1.000	37.25
ATOM	2653	CD2	LEU	B	51	43.720	9.389	59.828	1.000	48.43
ATOM	2654	C	LEU	B	51	46.840	7.056	62.042	1.000	38.45
ATOM	2655	O	LEU	B	51	47.503	8.091	62.030	1.000	31.93
ATOM	2656	N	LYS	B	52	47.146	5.957	62.721	1.000	40.28
ATOM	2657	CA	LYS	B	52	48.274	5.912	63.641	1.000	42.24
ATOM	2658	CB	LYS	B	52	48.513	4.470	64.104	1.000	40.97
ATOM	2659	CG	LYS	B	52	49.510	4.333	65.238	1.000	42.39
ATOM	2660	CD	LYS	B	52	49.041	3.361	66.306	1.000	52.34
ATOM	2661	CE	LYS	B	52	49.390	3.867	67.700	1.000	61.04
ATOM	2662	NZ	LYS	B	52	50.844	4.180	67.830	1.000	76.71
ATOM	2663	C	LYS	B	52	49.556	6.482	63.033	1.000	42.33
ATOM	2664	O	LYS	B	52	50.231	7.281	63.679	1.000	51.51
ATOM	2665	N	ASP	B	53	49.860	6.073	61.826	1.000	38.71
ATOM	2666	CA	ASP	B	53	51.069	6.209	61.057	1.000	45.09
ATOM	2667	CB	ASP	B	53	51.162	5.010	60.082	1.000	50.29
ATOM	2668	CG	ASP	B	53	49.852	4.773	59.352	1.000	58.20
ATOM	2669	OD1	ASP	B	53	48.816	4.532	60.008	1.000	47.71
ATOM	2670	OD2	ASP	B	53	49.828	4.823	58.101	1.000	71.83
ATOM	2671	C	ASP	B	53	51.159	7.483	60.225	1.000	42.44
ATOM	2672	O	ASP	B	53	52.242	7.872	59.785	1.000	38.32
ATOM	2673	N	VAL	B	54	50.014	8.111	59.996	1.000	33.25
ATOM	2674	CA	VAL	B	54	49.943	9.247	59.080	1.000	30.88
ATOM	2675	CB	VAL	B	54	48.498	9.764	58.989	1.000	35.26
ATOM	2676	CG1	VAL	B	54	48.409	11.060	58.194	1.000	24.09
ATOM	2677	CG2	VAL	B	54	47.599	8.696	58.361	1.000	22.83
ATOM	2678	C	VAL	B	54	50.917	10.340	59.504	1.000	32.17
ATOM	2679	O	VAL	B	54	50.929	10.809	60.638	1.000	25.64
ATOM	2680	N	GLY	B	55	51.766	10.722	58.562	1.000	36.64
ATOM	2681	CA	GLY	B	55	52.749	11.767	58.654	1.000	34.77
ATOM	2682	C	GLY	B	55	53.995	11.423	59.430	1.000	30.37
ATOM	2683	O	GLY	B	55	54.923	12.232	59.538	1.000	25.00
ATOM	2684	N	ARG	B	56	54.036	10.221	60.001	1.000	27.19
ATOM	2685	CA	ARG	B	56	55.133	9.904	60.919	1.000	34.78
ATOM	2686	CB	ARG	B	56	54.724	8.753	61.847	1.000	36.03
ATOM	2687	CG	ARG	B	56	53.643	9.120	62.851	1.000	31.22
ATOM	2688	CD	ARG	B	56	54.128	10.152	63.853	1.000	34.70
ATOM	2689	NE	ARG	B	56	53.193	10.340	64.954	1.000	46.39
ATOM	2690	CZ	ARG	B	56	53.205	9.786	66.155	1.000	39.08
ATOM	2691	NH1	ARG	B	56	54.165	8.935	66.471	1.000	26.47
ATOM	2692	NH2	ARG	B	56	52.270	10.066	67.063	1.000	33.87
ATOM	2693	C	ARG	B	56	56.425	9.574	60.187	1.000	37.74
ATOM	2694	O	ARG	B	56	57.415	9.186	60.808	1.000	41.64
ATOM	2695	N	ASN	B	57	56.415	9.743	58.871	1.000	41.17
ATOM	2696	CA	ASN	B	57	57.583	9.563	58.028	1.000	38.70
ATOM	2697	CB	ASN	B	57	57.146	9.244	56.587	1.000	42.33
ATOM	2698	CG	ASN	B	57	56.145	10.235	56.026	1.000	38.45
ATOM	2699	OD1	ASN	B	57	55.184	10.631	56.689	1.000	47.13
ATOM	2700	ND2	ASN	B	57	56.334	10.662	54.780	1.000	33.73
ATOM	2701	C	ASN	B	57	58.478	10.794	58.001	1.000	32.39
ATOM	2702	O	ASN	B	57	59.628	10.706	57.573	1.000	32.15
ATOM	2703	N	GLN	B	58	57.985	11.955	58.419	1.000	33.50

**FIGURE 58**

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ATOM	2704	CA	GLN	B	58	58.765	13.190	58.281	1.000	32.36
ATOM	2705	CB	GLN	B	58	57.838	14.389	58.063	1.000	31.34
ATOM	2706	CG	GLN	B	58	57.016	14.302	56.782	1.000	22.41
ATOM	2707	CD	GLN	B	58	55.700	15.058	56.891	1.000	23.88
ATOM	2708	OE1	GLN	B	58	54.809	14.711	57.668	1.000	33.63
ATOM	2709	NE2	GLN	B	58	55.545	16.114	56.113	1.000	22.62
ATOM	2710	C	GLN	B	58	59.652	13.445	59.490	1.000	25.07
ATOM	2711	O	GLN	B	58	59.327	13.045	60.608	1.000	29.18
ATOM	2712	N	SER	B	59	60.773	14.121	59.261	1.000	17.59
ATOM	2713	CA	SER	B	59	61.737	14.383	60.317	1.000	24.95
ATOM	2714	CB	SER	B	59	63.157	14.310	59.752	1.000	30.84
ATOM	2715	OG	SER	B	59	63.355	15.365	58.819	1.000	51.69
ATOM	2716	C	SER	B	59	61.503	15.745	60.971	1.000	27.35
ATOM	2717	O	SER	B	59	60.751	16.555	60.421	1.000	26.25
ATOM	2718	N	CYS	B	60	62.142	15.962	62.108	1.000	20.52
ATOM	2719	CA	CYS	B	60	62.088	17.174	62.901	1.000	25.62
ATOM	2720	CB	CYS	B	60	61.291	16.938	64.187	1.000	32.28
ATOM	2721	SG	CYS	B	60	59.563	16.490	63.935	1.000	44.06
ATOM	2722	C	CYS	B	60	63.483	17.658	63.294	1.000	26.82
ATOM	2723	O	CYS	B	60	63.697	17.986	64.466	1.000	32.10
ATOM	2724	N	ASP	B	61	64.399	17.692	62.342	1.000	27.28
ATOM	2725	CA	ASP	B	61	65.796	18.026	62.568	1.000	27.04
ATOM	2726	CB	ASP	B	61	66.567	17.889	61.242	1.000	38.19
ATOM	2727	CG	ASP	B	61	66.412	16.519	60.605	1.000	50.13
ATOM	2728	OD1	ASP	B	61	66.494	15.504	61.335	1.000	46.12
ATOM	2729	OD2	ASP	B	61	66.204	16.442	59.370	1.000	33.84
ATOM	2730	C	ASP	B	61	66.010	19.431	63.103	1.000	25.10
ATOM	2731	O	ASP	B	61	66.821	19.666	63.995	1.000	32.03
ATOM	2732	N	ILE	B	62	65.315	20.420	62.536	1.000	31.05
ATOM	2733	CA	ILE	B	62	65.582	21.807	62.924	1.000	30.27
ATOM	2734	CB	ILE	B	62	64.816	22.824	62.061	1.000	30.17
ATOM	2735	CG1	ILE	B	62	65.175	22.724	60.577	1.000	33.67
ATOM	2736	CD1	ILE	B	62	66.676	22.691	60.345	1.000	39.64
ATOM	2737	CG2	ILE	B	62	65.010	24.244	62.584	1.000	21.41
ATOM	2738	C	ILE	B	62	65.202	22.019	64.382	1.000	32.48
ATOM	2739	O	ILE	B	62	65.907	22.658	65.156	1.000	29.08
ATOM	2740	N	ALA	B	63	64.048	21.444	64.738	1.000	26.00
ATOM	2741	CA	ALA	B	63	63.649	21.631	66.136	1.000	26.52
ATOM	2742	CB	ALA	B	63	62.232	21.116	66.313	1.000	16.06
ATOM	2743	C	ALA	B	63	64.643	20.948	67.058	1.000	26.00
ATOM	2744	O	ALA	B	63	64.789	21.266	68.235	1.000	32.44
ATOM	2745	N	LEU	B	64	65.380	19.963	66.558	1.000	29.22
ATOM	2746	CA	LEU	B	64	66.274	19.228	67.458	1.000	36.10
ATOM	2747	CB	LEU	B	64	66.389	17.787	66.957	1.000	34.83
ATOM	2748	CG	LEU	B	64	65.227	16.867	67.351	1.000	34.44
ATOM	2749	CD1	LEU	B	64	65.292	15.577	66.547	1.000	29.17
ATOM	2750	CD2	LEU	B	64	65.242	16.616	68.853	1.000	22.34
ATOM	2751	C	LEU	B	64	67.641	19.880	67.584	1.000	38.72
ATOM	2752	O	LEU	B	64	68.466	19.505	68.423	1.000	33.43
ATOM	2753	N	LEU	B	65	67.910	20.882	66.752	1.000	29.69
ATOM	2754	CA	LEU	B	65	69.194	21.567	66.816	1.000	24.50
ATOM	2755	CB	LEU	B	65	69.248	22.693	65.788	1.000	23.85

**FIGURE 59**

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ATOM	2756	CG	LEU	B	65	69.163	22.287	64.320	1.000	39.84
ATOM	2757	CD1	LEU	B	65	68.898	23.516	63.459	1.000	38.18
ATOM	2758	CD2	LEU	B	65	70.432	21.567	63.880	1.000	36.27
ATOM	2759	C	LEU	B	65	69.438	22.122	68.218	1.000	36.38
ATOM	2760	O	LEU	B	65	68.526	22.606	68.883	1.000	40.63
ATOM	2761	N	PRO	B	66	70.686	22.026	68.657	1.000	45.15
ATOM	2762	CA	PRO	B	66	71.066	22.422	70.011	1.000	54.26
ATOM	2763	CB	PRO	B	66	72.601	22.452	69.931	1.000	52.68
ATOM	2764	CG	PRO	B	66	72.910	21.394	68.918	1.000	46.70
ATOM	2765	CD	PRO	B	66	71.831	21.512	67.881	1.000	44.93
ATOM	2766	C	PRO	B	66	70.553	23.796	70.415	1.000	50.86
ATOM	2767	O	PRO	B	66	70.105	23.966	71.552	1.000	48.53
ATOM	2768	N	GLU	B	67	70.616	24.767	69.510	1.000	51.81
ATOM	2769	CA	GLU	B	67	70.250	26.137	69.872	1.000	51.43
ATOM	2770	CB	GLU	B	67	70.880	27.124	68.885	1.000	55.34
ATOM	2771	CG	GLU	B	67	71.814	28.138	69.522	1.000	71.70
ATOM	2772	CD	GLU	B	67	71.302	28.794	70.787	1.000	77.75
ATOM	2773	OE1	GLU	B	67	72.110	28.959	71.733	1.000	81.38
ATOM	2774	OE2	GLU	B	67	70.109	29.159	70.864	1.000	60.23
ATOM	2775	C	GLU	B	67	68.745	26.354	69.938	1.000	46.00
ATOM	2776	O	GLU	B	67	68.296	27.474	70.196	1.000	48.84
ATOM	2777	N	ASN	B	68	67.944	25.314	69.711	1.000	40.69
ATOM	2778	CA	ASN	B	68	66.494	25.487	69.755	1.000	36.03
ATOM	2779	CB	ASN	B	68	65.825	24.980	68.477	1.000	39.69
ATOM	2780	CG	ASN	B	68	66.147	25.780	67.233	1.000	33.61
ATOM	2781	OD1	ASN	B	68	66.504	26.952	67.287	1.000	31.83
ATOM	2782	ND2	ASN	B	68	66.038	25.160	66.060	1.000	31.89
ATOM	2783	C	ASN	B	68	65.914	24.759	70.964	1.000	34.09
ATOM	2784	O	ASN	B	68	64.719	24.859	71.235	1.000	47.57
ATOM	2785	N	ARG	B	69	66.765	24.038	71.685	1.000	36.03
ATOM	2786	CA	ARG	B	69	66.306	23.202	72.792	1.000	41.44
ATOM	2787	CB	ARG	B	69	67.483	22.545	73.522	1.000	43.89
ATOM	2788	CG	ARG	B	69	67.790	21.126	73.075	1.000	54.59
ATOM	2789	CD	ARG	B	69	68.623	21.108	71.802	1.000	63.54
ATOM	2790	NE	ARG	B	69	68.602	19.813	71.126	1.000	68.27
ATOM	2791	CZ	ARG	B	69	69.645	18.999	71.016	1.000	73.48
ATOM	2792	NH1	ARG	B	69	70.812	19.341	71.551	1.000	75.03
ATOM	2793	NH2	ARG	B	69	69.536	17.838	70.378	1.000	71.51
ATOM	2794	C	ARG	B	69	65.466	23.990	73.787	1.000	37.64
ATOM	2795	O	ARG	B	69	64.448	23.486	74.260	1.000	47.56
ATOM	2796	N	GLY	B	70	65.885	25.212	74.117	1.000	32.41
ATOM	2797	CA	GLY	B	70	65.107	25.974	75.086	1.000	30.87
ATOM	2798	C	GLY	B	70	63.789	26.425	74.495	1.000	31.35
ATOM	2799	O	GLY	B	70	62.881	26.880	75.183	1.000	32.44
ATOM	2800	N	LYS	B	71	63.642	26.301	73.172	1.000	28.40
ATOM	2801	CA	LYS	B	71	62.431	26.876	72.579	1.000	23.17
ATOM	2802	CB	LYS	B	71	62.809	27.437	71.205	1.000	24.12
ATOM	2803	CG	LYS	B	71	63.920	28.476	71.318	1.000	25.57
ATOM	2804	CD	LYS	B	71	64.674	28.583	70.010	1.000	30.17
ATOM	2805	CE	LYS	B	71	65.580	29.802	69.994	1.000	37.46
ATOM	2806	NZ	LYS	B	71	66.319	29.886	68.700	1.000	51.92
ATOM	2807	C	LYS	B	71	61.296	25.876	72.492	1.000	23.16

**FIGURE 60**



ATOM	2808	O	LYS	B	71	60.205	26.158	71.995	1.000	27.70
ATOM	2809	N	ASN	B	72	61.501	24.663	72.997	1.000	19.21
ATOM	2810	CA	ASN	B	72	60.414	23.691	72.972	1.000	21.63
ATOM	2811	CB	ASN	B	72	60.918	22.370	72.375	1.000	26.16
ATOM	2812	CG	ASN	B	72	61.306	22.543	70.916	1.000	31.09
ATOM	2813	OD1	ASN	B	72	60.465	22.945	70.109	1.000	26.04
ATOM	2814	ND2	ASN	B	72	62.558	22.245	70.577	1.000	24.16
ATOM	2815	C	ASN	B	72	59.855	23.481	74.369	1.000	28.90
ATOM	2816	O	ASN	B	72	60.603	23.340	75.333	1.000	27.09
ATOM	2817	N	ARG	B	73	58.532	23.462	74.504	1.000	29.94
ATOM	2818	CA	ARG	B	73	57.950	23.251	75.827	1.000	29.94
ATOM	2819	CB	ARG	B	73	56.501	23.738	75.862	1.000	30.13
ATOM	2820	CG	ARG	B	73	55.847	23.665	77.239	1.000	26.45
ATOM	2821	CD	ARG	B	73	54.393	24.129	77.156	1.000	21.48
ATOM	2822	NE	ARG	B	73	54.347	25.597	77.101	1.000	21.98
ATOM	2823	CZ	ARG	B	73	54.413	26.305	78.225	1.000	30.47
ATOM	2824	NH1	ARG	B	73	54.514	25.676	79.390	1.000	22.83
ATOM	2825	NH2	ARG	B	73	54.373	27.624	78.162	1.000	37.96
ATOM	2826	C	ARG	B	73	58.047	21.775	76.205	1.000	36.82
ATOM	2827	O	ARG	B	73	58.212	21.428	77.375	1.000	27.47
ATOM	2828	N	TYR	B	74	57.948	20.904	75.202	1.000	27.29
ATOM	2829	CA	TYR	B	74	58.101	19.470	75.416	1.000	24.94
ATOM	2830	CB	TYR	B	74	56.774	18.731	75.335	1.000	24.22
ATOM	2831	CG	TYR	B	74	55.661	19.265	76.209	1.000	31.66
ATOM	2832	CD1	TYR	B	74	55.531	18.876	77.540	1.000	37.63
ATOM	2833	CE1	TYR	B	74	54.513	19.366	78.342	1.000	39.66
ATOM	2834	CZ	TYR	B	74	53.601	20.258	77.818	1.000	38.75
ATOM	2835	OH	TYR	B	74	52.588	20.745	78.608	1.000	34.40
ATOM	2836	CE2	TYR	B	74	53.695	20.668	76.503	1.000	25.62
ATOM	2837	CD2	TYR	B	74	54.722	20.163	75.724	1.000	27.42
ATOM	2838	C	TYR	B	74	59.091	18.944	74.377	1.000	34.07
ATOM	2839	O	TYR	B	74	58.878	19.078	73.170	1.000	35.65
ATOM	2840	N	ASN	B	75	60.170	18.362	74.871	1.000	32.88
ATOM	2841	CA	ASN	B	75	61.260	17.890	74.027	1.000	35.16
ATOM	2842	CB	ASN	B	75	62.397	17.415	74.942	1.000	41.15
ATOM	2843	CG	ASN	B	75	63.227	18.582	75.448	1.000	49.51
ATOM	2844	OD1	ASN	B	75	64.296	18.392	76.032	1.000	62.29
ATOM	2845	ND2	ASN	B	75	62.756	19.808	75.230	1.000	47.01
ATOM	2846	C	ASN	B	75	60.832	16.813	73.042	1.000	27.77
ATOM	2847	O	ASN	B	75	61.544	16.541	72.062	1.000	31.84
ATOM	2848	N	ASN	B	76	59.676	16.191	73.248	1.000	24.48
ATOM	2849	CA	ASN	B	76	59.194	15.180	72.303	1.000	31.98
ATOM	2850	CB	ASN	B	76	58.888	13.857	73.026	1.000	39.45
ATOM	2851	CG	ASN	B	76	57.794	14.002	74.065	1.000	36.56
ATOM	2852	OD1	ASN	B	76	57.640	15.076	74.643	1.000	29.01
ATOM	2853	ND2	ASN	B	76	57.038	12.939	74.311	1.000	28.69
ATOM	2854	C	ASN	B	76	57.964	15.646	71.535	1.000	35.01
ATOM	2855	O	ASN	B	76	57.304	14.845	70.863	1.000	26.16
ATOM	2856	N	ILE	B	77	57.641	16.943	71.608	1.000	28.11
ATOM	2857	CA	ILE	B	77	56.567	17.443	70.743	1.000	30.83
ATOM	2858	CB	ILE	B	77	55.318	17.839	71.534	1.000	30.03
ATOM	2859	CG1	ILE	B	77	54.547	16.646	72.114	1.000	33.86

**FIGURE 61**

ATOM	2860	CD1	ILE	B	77	53.956	16.931	73.479	1.000	23.65
ATOM	2861	CG2	ILE	B	77	54.400	18.697	70.690	1.000	34.46
ATOM	2862	C	ILE	B	77	57.078	18.622	69.914	1.000	27.23
ATOM	2863	O	ILE	B	77	57.193	19.748	70.388	1.000	22.76
ATOM	2864	N	LEU	B	78	57.404	18.308	68.668	1.000	23.21
ATOM	2865	CA	LEU	B	78	58.101	19.170	67.741	1.000	24.29
ATOM	2866	CB	LEU	B	78	59.571	18.763	67.579	1.000	30.93
ATOM	2867	CG	LEU	B	78	60.317	18.344	68.845	1.000	29.39
ATOM	2868	CD1	LEU	B	78	61.596	17.606	68.496	1.000	30.84
ATOM	2869	CD2	LEU	B	78	60.606	19.563	69.702	1.000	39.96
ATOM	2870	C	LEU	B	78	57.477	19.158	66.348	1.000	27.34
ATOM	2871	O	LEU	B	78	56.883	18.186	65.883	1.000	22.52
ATOM	2872	N	PRO	B	79	57.653	20.300	65.695	1.000	26.68
ATOM	2873	CA	PRO	B	79	57.097	20.468	64.351	1.000	19.33
ATOM	2874	CB	PRO	B	79	57.244	21.974	64.135	1.000	20.00
ATOM	2875	CG	PRO	B	79	58.491	22.309	64.892	1.000	17.51
ATOM	2876	CD	PRO	B	79	58.384	21.490	66.156	1.000	17.54
ATOM	2877	C	PRO	B	79	57.939	19.691	63.351	1.000	18.83
ATOM	2878	O	PRO	B	79	59.161	19.657	63.510	1.000	24.06
ATOM	2879	N	TYR	B	80	57.287	19.098	62.367	1.000	18.71
ATOM	2880	CA	TYR	B	80	57.911	18.548	61.181	1.000	17.89
ATOM	2881	CB	TYR	B	80	56.857	17.886	60.297	1.000	30.40
ATOM	2882	CG	TYR	B	80	56.167	16.688	60.900	1.000	29.81
ATOM	2883	CD1	TYR	B	80	56.876	15.711	61.589	1.000	27.11
ATOM	2884	CE1	TYR	B	80	56.247	14.607	62.147	1.000	26.90
ATOM	2885	CZ	TYR	B	80	54.885	14.478	62.004	1.000	27.92
ATOM	2886	OH	TYR	B	80	54.233	13.393	62.539	1.000	22.86
ATOM	2887	CE2	TYR	B	80	54.162	15.432	61.324	1.000	21.67
ATOM	2888	CD2	TYR	B	80	54.794	16.532	60.774	1.000	22.55
ATOM	2889	C	TYR	B	80	58.600	19.647	60.373	1.000	26.95
ATOM	2890	O	TYR	B	80	58.000	20.703	60.137	1.000	29.85
ATOM	2891	N	ASP	B	81	59.836	19.401	59.962	1.000	23.42
ATOM	2892	CA	ASP	B	81	60.607	20.320	59.148	1.000	23.41
ATOM	2893	CB	ASP	B	81	61.878	19.642	58.613	1.000	34.98
ATOM	2894	CG	ASP	B	81	62.914	19.322	59.664	1.000	32.41
ATOM	2895	OD1	ASP	B	81	62.951	20.053	60.680	1.000	35.92
ATOM	2896	OD2	ASP	B	81	63.686	18.346	59.510	1.000	30.60
ATOM	2897	C	ASP	B	81	59.795	20.828	57.959	1.000	25.69
ATOM	2898	O	ASP	B	81	59.760	22.011	57.634	1.000	33.08
ATOM	2899	N	ALA	B	82	59.122	19.915	57.268	1.000	28.44
ATOM	2900	CA	ALA	B	82	58.455	20.249	56.015	1.000	30.21
ATOM	2901	CB	ALA	B	82	57.984	18.939	55.373	1.000	26.10
ATOM	2902	C	ALA	B	82	57.283	21.200	56.164	1.000	29.54
ATOM	2903	O	ALA	B	82	56.790	21.814	55.211	1.000	25.55
ATOM	2904	N	THR	B	83	56.753	21.363	57.372	1.000	22.96
ATOM	2905	CA	THR	B	83	55.542	22.170	57.495	1.000	22.68
ATOM	2906	CB	THR	B	83	54.342	21.270	57.845	1.000	29.40
ATOM	2907	OG1	THR	B	83	54.667	20.507	59.014	1.000	20.17
ATOM	2908	CG2	THR	B	83	54.087	20.287	56.713	1.000	25.89
ATOM	2909	C	THR	B	83	55.677	23.231	58.566	1.000	23.50
ATOM	2910	O	THR	B	83	54.681	23.841	58.936	1.000	22.92
ATOM	2911	N	ARG	B	84	56.897	23.443	59.056	1.000	25.87

FIGURE 62

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ATOM	2912	CA	ARG	B	84	57.050	24.372	60.171	1.000	26.66
ATOM	2913	CB	ARG	B	84	58.405	24.149	60.862	1.000	26.13
ATOM	2914	CG	ARG	B	84	59.618	24.541	60.040	1.000	22.35
ATOM	2915	CD	ARG	B	84	60.929	24.294	60.779	1.000	26.61
ATOM	2916	NE	ARG	B	84	62.018	24.933	60.053	1.000	28.50
ATOM	2917	CZ	ARG	B	84	62.683	26.031	60.352	1.000	29.24
ATOM	2918	NH1	ARG	B	84	62.442	26.754	61.435	1.000	24.43
ATOM	2919	NH2	ARG	B	84	63.645	26.433	59.530	1.000	32.59
ATOM	2920	C	ARG	B	84	56.890	25.819	59.728	1.000	22.30
ATOM	2921	O	ARG	B	84	57.133	26.183	58.583	1.000	23.04
ATOM	2922	N	VAL	B	85	56.477	26.663	60.669	1.000	18.94
ATOM	2923	CA	VAL	B	85	56.405	28.101	60.424	1.000	21.51
ATOM	2924	CB	VAL	B	85	55.322	28.738	61.308	1.000	18.95
ATOM	2925	CG1	VAL	B	85	55.256	30.249	61.152	1.000	24.35
ATOM	2926	CG2	VAL	B	85	53.967	28.113	60.988	1.000	12.73
ATOM	2927	C	VAL	B	85	57.776	28.707	60.699	1.000	25.23
ATOM	2928	O	VAL	B	85	58.331	28.435	61.767	1.000	27.46
ATOM	2929	N	LYS	B	86	58.320	29.488	59.782	1.000	19.69
ATOM	2930	CA	LYS	B	86	59.624	30.120	59.878	1.000	21.25
ATOM	2931	CB	LYS	B	86	60.321	30.044	58.509	1.000	26.66
ATOM	2932	CG	LYS	B	86	60.905	28.675	58.194	1.000	33.26
ATOM	2933	CD	LYS	B	86	60.950	28.412	56.698	1.000	34.06
ATOM	2934	CE	LYS	B	86	61.685	27.121	56.377	1.000	41.77
ATOM	2935	NZ	LYS	B	86	63.000	27.368	55.715	1.000	51.25
ATOM	2936	C	LYS	B	86	59.558	31.584	60.289	1.000	27.93
ATOM	2937	O	LYS	B	86	58.723	32.338	59.780	1.000	31.79
ATOM	2938	N	LEU	B	87	60.431	32.027	61.194	1.000	31.15
ATOM	2939	CA	LEU	B	87	60.507	33.457	61.505	1.000	28.89
ATOM	2940	CB	LEU	B	87	61.126	33.736	62.870	1.000	21.77
ATOM	2941	CG	LEU	B	87	60.472	33.041	64.066	1.000	30.37
ATOM	2942	CD1	LEU	B	87	61.312	33.206	65.321	1.000	35.12
ATOM	2943	CD2	LEU	B	87	59.066	33.577	64.279	1.000	22.71
ATOM	2944	C	LEU	B	87	61.332	34.163	60.429	1.000	37.83
ATOM	2945	O	LEU	B	87	62.297	33.589	59.913	1.000	30.13
ATOM	2946	N	SER	B	88	60.944	35.389	60.100	1.000	36.67
ATOM	2947	CA	SER	B	88	61.678	36.147	59.095	1.000	40.88
ATOM	2948	CB	SER	B	88	61.145	37.572	58.969	1.000	50.96
ATOM	2949	OG	SER	B	88	61.924	38.447	59.787	1.000	71.49
ATOM	2950	C	SER	B	88	63.162	36.209	59.453	1.000	53.58
ATOM	2951	O	SER	B	88	63.487	36.614	60.569	1.000	59.70
ATOM	2952	N	ASN	B	89	63.971	35.800	58.503	1.000	71.44
ATOM	2953	CA	ASN	B	89	65.419	35.723	58.486	1.000	85.86
ATOM	2954	CB	ASN	B	89	65.871	36.099	57.064	1.000	85.53
ATOM	2955	CG	ASN	B	89	64.906	35.515	56.046	1.000	83.74
ATOM	2956	OD1	ASN	B	89	63.714	35.820	56.022	1.000	58.06
ATOM	2957	ND2	ASN	B	89	65.435	34.646	55.196	1.000	94.70
ATOM	2958	C	ASN	B	89	66.085	36.608	59.532	1.000	95.53
ATOM	2959	O	ASN	B	89	66.500	37.726	59.230	1.000	106.63
ATOM	2960	N	VAL	B	90	66.182	36.108	60.760	1.000	99.91
ATOM	2961	CA	VAL	B	90	66.604	36.863	61.925	1.000	106.49
ATOM	2962	CB	VAL	B	90	65.922	36.329	63.208	1.000	100.23
ATOM	2963	CG1	VAL	B	90	65.594	37.484	64.140	1.000	85.61

**FIGURE 63**

ATOM	2964	CG2	VAL	B	90	64.673	35.536	62.861	1.000	93.25
ATOM	2965	C	VAL	B	90	68.114	36.866	62.182	1.000	113.45
ATOM	2966	O	VAL	B	90	68.832	35.943	61.806	1.000	122.31
ATOM	2967	N	ASP	B	91	68.544	37.933	62.844	1.000	114.27
ATOM	2968	CA	ASP	B	91	69.897	38.277	63.228	1.000	110.66
ATOM	2969	CB	ASP	B	91	69.892	39.409	64.264	1.000	111.15
ATOM	2970	CG	ASP	B	91	71.270	40.014	64.465	1.000	110.08
ATOM	2971	OD1	ASP	B	91	71.763	40.698	63.539	1.000	108.01
ATOM	2972	OD2	ASP	B	91	71.864	39.800	65.540	1.000	107.80
ATOM	2973	C	ASP	B	91	70.667	37.090	63.802	1.000	103.90
ATOM	2974	O	ASP	B	91	70.062	36.112	64.251	1.000	107.40
ATOM	2975	N	ASP	B	92	71.989	37.191	63.769	1.000	95.56
ATOM	2976	CA	ASP	B	92	72.913	36.160	64.216	1.000	92.84
ATOM	2977	CB	ASP	B	92	72.475	35.573	65.557	1.000	96.48
ATOM	2978	CG	ASP	B	92	73.473	35.776	66.676	1.000	98.09
ATOM	2979	OD1	ASP	B	92	73.609	34.872	67.529	1.000	84.88
ATOM	2980	OD2	ASP	B	92	74.122	36.837	66.715	1.000	107.58
ATOM	2981	C	ASP	B	92	73.036	35.057	63.161	1.000	91.94
ATOM	2982	O	ASP	B	92	74.144	34.632	62.832	1.000	94.07
ATOM	2983	N	ASP	B	93	71.901	34.619	62.650	1.000	91.73
ATOM	2984	CA	ASP	B	93	71.682	33.642	61.611	1.000	95.04
ATOM	2985	CB	ASP	B	93	72.393	34.073	60.319	1.000	103.17
ATOM	2986	CG	ASP	B	93	71.728	35.227	59.594	1.000	106.58
ATOM	2987	OD1	ASP	B	93	70.954	34.993	58.638	1.000	104.63
ATOM	2988	OD2	ASP	B	93	71.988	36.396	59.962	1.000	107.25
ATOM	2989	C	ASP	B	93	72.140	32.243	62.001	1.000	91.99
ATOM	2990	O	ASP	B	93	72.871	31.598	61.239	1.000	105.20
ATOM	2991	N	PRO	B	94	71.753	31.714	63.147	1.000	86.76
ATOM	2992	CA	PRO	B	94	72.111	30.328	63.491	1.000	84.05
ATOM	2993	CB	PRO	B	94	72.346	30.431	64.992	1.000	81.07
ATOM	2994	CG	PRO	B	94	71.549	31.600	65.461	1.000	79.07
ATOM	2995	CD	PRO	B	94	70.967	32.274	64.262	1.000	82.73
ATOM	2996	C	PRO	B	94	70.930	29.403	63.184	1.000	88.17
ATOM	2997	O	PRO	B	94	70.886	28.767	62.140	1.000	95.17
ATOM	2998	N	CYS	B	95	70.014	29.396	64.129	1.000	85.15
ATOM	2999	CA	CYS	B	95	68.692	28.806	64.171	1.000	71.00
ATOM	3000	CB	CYS	B	95	68.676	27.559	65.048	1.000	68.25
ATOM	3001	SG	CYS	B	95	70.324	27.048	65.606	1.000	59.08
ATOM	3002	C	CYS	B	95	67.724	29.872	64.691	1.000	61.59
ATOM	3003	O	CYS	B	95	66.839	29.638	65.507	1.000	45.14
ATOM	3004	N	SER	B	96	67.966	31.077	64.176	1.000	54.56
ATOM	3005	CA	SER	B	96	67.227	32.262	64.582	1.000	54.51
ATOM	3006	CB	SER	B	96	67.962	33.527	64.131	1.000	53.89
ATOM	3007	OG	SER	B	96	68.750	33.268	62.979	1.000	64.41
ATOM	3008	C	SER	B	96	65.806	32.239	64.029	1.000	47.05
ATOM	3009	O	SER	B	96	64.946	32.971	64.526	1.000	50.88
ATOM	3010	N	ASP	B	97	65.565	31.402	63.024	1.000	36.23
ATOM	3011	CA	ASP	B	97	64.263	31.360	62.369	1.000	27.85
ATOM	3012	CB	ASP	B	97	64.461	30.914	60.911	1.000	24.26
ATOM	3013	CG	ASP	B	97	64.720	29.419	60.834	1.000	36.82
ATOM	3014	OD1	ASP	B	97	65.206	28.822	61.819	1.000	38.88
ATOM	3015	OD2	ASP	B	97	64.431	28.828	59.772	1.000	52.38

FIGURE 64

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ATOM	3016	C	ASP	B	97	63.263	30.420	63.027	1.000	29.64
ATOM	3017	O	ASP	B	97	62.132	30.313	62.537	1.000	25.93
ATOM	3018	N	TYR	B	98	63.653	29.727	64.094	1.000	31.48
ATOM	3019	CA	TYR	B	98	62.830	28.686	64.683	1.000	27.28
ATOM	3020	CB	TYR	B	98	63.708	27.639	65.426	1.000	24.83
ATOM	3021	CG	TYR	B	98	62.860	26.500	65.960	1.000	19.17
ATOM	3022	CD1	TYR	B	98	62.365	25.535	65.080	1.000	20.66
ATOM	3023	CE1	TYR	B	98	61.587	24.485	65.523	1.000	24.11
ATOM	3024	CZ	TYR	B	98	61.285	24.380	66.864	1.000	26.77
ATOM	3025	OH	TYR	B	98	60.508	23.331	67.317	1.000	19.75
ATOM	3026	CE2	TYR	B	98	61.760	25.324	67.751	1.000	22.13
ATOM	3027	CD2	TYR	B	98	62.540	26.372	67.306	1.000	20.85
ATOM	3028	C	TYR	B	98	61.775	29.132	65.687	1.000	20.04
ATOM	3029	O	TYR	B	98	61.972	29.920	66.608	1.000	25.66
ATOM	3030	N	ILE	B	99	60.604	28.517	65.531	1.000	20.57
ATOM	3031	CA	ILE	B	99	59.546	28.552	66.532	1.000	19.42
ATOM	3032	CB	ILE	B	99	58.577	29.720	66.314	1.000	19.96
ATOM	3033	CG1	ILE	B	99	57.447	29.790	67.336	1.000	17.02
ATOM	3034	CD1	ILE	B	99	56.771	31.140	67.413	1.000	19.58
ATOM	3035	CG2	ILE	B	99	58.013	29.694	64.897	1.000	29.56
ATOM	3036	C	ILE	B	99	58.773	27.240	66.500	1.000	22.92
ATOM	3037	O	ILE	B	99	58.543	26.677	65.428	1.000	23.59
ATOM	3038	N	ASN	B	100	58.373	26.722	67.665	1.000	17.01
ATOM	3039	CA	ASN	B	100	57.617	25.462	67.617	1.000	20.62
ATOM	3040	CB	ASN	B	100	57.574	24.797	68.989	1.000	22.98
ATOM	3041	CG	ASN	B	100	56.990	23.404	68.998	1.000	24.77
ATOM	3042	OD1	ASN	B	100	56.001	23.116	68.319	1.000	25.34
ATOM	3043	ND2	ASN	B	100	57.571	22.496	69.786	1.000	18.32
ATOM	3044	C	ASN	B	100	56.226	25.777	67.081	1.000	20.30
ATOM	3045	O	ASN	B	100	55.361	26.152	67.888	1.000	19.79
ATOM	3046	N	ALA	B	101	56.067	25.654	65.760	1.000	21.42
ATOM	3047	CA	ALA	B	101	54.782	25.946	65.121	1.000	21.68
ATOM	3048	CB	ALA	B	101	54.559	27.450	65.071	1.000	13.80
ATOM	3049	C	ALA	B	101	54.696	25.326	63.732	1.000	26.20
ATOM	3050	O	ALA	B	101	55.715	25.142	63.072	1.000	18.76
ATOM	3051	N	SER	B	102	53.499	24.985	63.271	1.000	29.48
ATOM	3052	CA	SER	B	102	53.250	24.285	62.023	1.000	19.07
ATOM	3053	CB	SER	B	102	52.919	22.808	62.271	1.000	15.75
ATOM	3054	OG	SER	B	102	53.753	22.258	63.274	1.000	21.52
ATOM	3055	C	SER	B	102	52.073	24.879	61.259	1.000	19.78
ATOM	3056	O	SER	B	102	51.068	25.227	61.882	1.000	21.21
ATOM	3057	N	TYR	B	103	52.181	24.977	59.931	1.000	17.66
ATOM	3058	CA	TYR	B	103	51.017	25.426	59.166	1.000	18.10
ATOM	3059	CB	TYR	B	103	51.373	25.982	57.794	1.000	20.23
ATOM	3060	CG	TYR	B	103	52.221	27.216	57.690	1.000	18.78
ATOM	3061	CD1	TYR	B	103	51.692	28.498	57.841	1.000	22.17
ATOM	3062	CE1	TYR	B	103	52.490	29.627	57.736	1.000	21.36
ATOM	3063	CZ	TYR	B	103	53.840	29.489	57.472	1.000	23.55
ATOM	3064	OH	TYR	B	103	54.656	30.597	57.367	1.000	21.98
ATOM	3065	CE2	TYR	B	103	54.394	28.237	57.316	1.000	20.92
ATOM	3066	CD2	TYR	B	103	53.585	27.113	57.422	1.000	26.09
ATOM	3067	C	TYR	B	103	50.054	24.256	58.995	1.000	16.67

**FIGURE 65**

ATOM	3068	O	TYR B 103	50.489	23.126	58.760	1.000	22.66
ATOM	3069	N	ILE B 104	48.756	24.521	59.088	1.000	19.23
ATOM	3070	CA	ILE B 104	47.781	23.448	58.955	1.000	24.34
ATOM	3071	CB	ILE B 104	47.099	23.127	60.304	1.000	32.75
ATOM	3072	CG1	ILE B 104	48.085	22.913	61.452	1.000	27.91
ATOM	3073	CD1	ILE B 104	48.886	21.643	61.328	1.000	18.81
ATOM	3074	CG2	ILE B 104	46.164	21.938	60.144	1.000	20.62
ATOM	3075	C	ILE B 104	46.672	23.774	57.966	1.000	24.01
ATOM	3076	O	ILE B 104	46.080	24.847	58.018	1.000	15.86
ATOM	3077	N	PRO B 105	46.370	22.829	57.086	1.000	25.98
ATOM	3078	CA	PRO B 105	45.332	23.074	56.078	1.000	27.95
ATOM	3079	CB	PRO B 105	45.503	21.922	55.088	1.000	18.03
ATOM	3080	CG	PRO B 105	46.582	21.035	55.586	1.000	21.67
ATOM	3081	CD	PRO B 105	46.944	21.482	56.973	1.000	24.89
ATOM	3082	C	PRO B 105	43.940	23.045	56.698	1.000	28.32
ATOM	3083	O	PRO B 105	43.656	22.391	57.703	1.000	36.85
ATOM	3084	N	GLY B 106	43.011	23.768	56.085	1.000	21.37
ATOM	3085	CA	GLY B 106	41.640	23.703	56.591	1.000	21.21
ATOM	3086	C	GLY B 106	40.757	23.172	55.465	1.000	27.66
ATOM	3087	O	GLY B 106	41.280	22.580	54.521	1.000	21.69
ATOM	3088	N	ASN B 107	39.461	23.394	55.567	1.000	27.43
ATOM	3089	CA	ASN B 107	38.490	22.979	54.572	1.000	35.96
ATOM	3090	CB	ASN B 107	37.085	23.184	55.152	1.000	47.76
ATOM	3091	CG	ASN B 107	36.304	21.899	55.308	1.000	49.77
ATOM	3092	OD1	ASN B 107	35.075	21.945	55.229	1.000	73.31
ATOM	3093	ND2	ASN B 107	36.983	20.777	55.521	1.000	41.72
ATOM	3094	C	ASN B 107	38.605	23.762	53.268	1.000	40.01
ATOM	3095	O	ASN B 107	38.170	23.268	52.227	1.000	27.43
ATOM	3096	N	ASN B 108	39.172	24.962	53.316	1.000	47.34
ATOM	3097	CA	ASN B 108	39.181	25.892	52.194	1.000	49.18
ATOM	3098	CB	ASN B 108	38.573	27.227	52.670	1.000	53.17
ATOM	3099	CG	ASN B 108	37.444	27.012	53.664	1.000	60.31
ATOM	3100	OD1	ASN B 108	36.332	26.632	53.279	1.000	45.80
ATOM	3101	ND2	ASN B 108	37.724	27.248	54.945	1.000	39.45
ATOM	3102	C	ASN B 108	40.545	26.159	51.574	1.000	41.89
ATOM	3103	O	ASN B 108	40.633	26.284	50.347	1.000	48.34
ATOM	3104	N	PHE B 109	41.607	26.266	52.373	1.000	32.76
ATOM	3105	CA	PHE B 109	42.947	26.513	51.844	1.000	22.32
ATOM	3106	CB	PHE B 109	43.245	28.009	51.738	1.000	27.58
ATOM	3107	CG	PHE B 109	42.837	28.902	52.878	1.000	36.26
ATOM	3108	CD1	PHE B 109	43.785	29.482	53.709	1.000	36.93
ATOM	3109	CE1	PHE B 109	43.434	30.318	54.748	1.000	43.65
ATOM	3110	CZ	PHE B 109	42.102	30.599	54.991	1.000	46.87
ATOM	3111	CE2	PHE B 109	41.144	30.029	54.175	1.000	48.29
ATOM	3112	CD2	PHE B 109	41.509	29.191	53.140	1.000	38.59
ATOM	3113	C	PHE B 109	44.009	25.809	52.681	1.000	26.82
ATOM	3114	O	PHE B 109	43.745	25.302	53.775	1.000	33.42
ATOM	3115	N	ARG B 110	45.231	25.760	52.163	1.000	21.41
ATOM	3116	CA	ARG B 110	46.293	24.976	52.783	1.000	29.86
ATOM	3117	CB	ARG B 110	47.331	24.635	51.691	1.000	23.08
ATOM	3118	CG	ARG B 110	46.678	23.836	50.567	1.000	24.73
ATOM	3119	CD	ARG B 110	47.700	23.142	49.690	1.000	35.94

**FIGURE 66**

ATOM	3120	NE	ARG	B	110	48.602	22.284	50.447	1.000	54.44
ATOM	3121	CZ	ARG	B	110	48.689	20.963	50.337	1.000	65.83
ATOM	3122	NH1	ARG	B	110	47.907	20.318	49.480	1.000	62.56
ATOM	3123	NH2	ARG	B	110	49.562	20.304	51.095	1.000	60.21
ATOM	3124	C	ARG	B	110	46.975	25.640	53.960	1.000	33.08
ATOM	3125	O	ARG	B	110	47.566	24.963	54.817	1.000	25.95
ATOM	3126	N	ARG	B	111	46.949	26.968	54.073	1.000	29.38
ATOM	3127	CA	ARG	B	111	47.600	27.571	55.248	1.000	25.02
ATOM	3128	CB	ARG	B	111	48.716	28.513	54.839	1.000	22.60
ATOM	3129	CG	ARG	B	111	49.940	27.889	54.187	1.000	25.96
ATOM	3130	CD	ARG	B	111	51.044	28.951	54.077	1.000	25.11
ATOM	3131	NE	ARG	B	111	52.352	28.321	54.010	1.000	31.63
ATOM	3132	CZ	ARG	B	111	53.527	28.919	53.942	1.000	26.99
ATOM	3133	NH1	ARG	B	111	53.614	30.238	53.935	1.000	28.95
ATOM	3134	NH2	ARG	B	111	54.622	28.173	53.884	1.000	31.47
ATOM	3135	C	ARG	B	111	46.556	28.306	56.085	1.000	24.94
ATOM	3136	O	ARG	B	111	46.687	29.475	56.447	1.000	29.91
ATOM	3137	N	GLU	B	112	45.493	27.571	56.391	1.000	23.64
ATOM	3138	CA	GLU	B	112	44.323	28.134	57.049	1.000	17.42
ATOM	3139	CB	GLU	B	112	43.130	27.204	56.817	1.000	18.28
ATOM	3140	CG	GLU	B	112	41.790	27.862	57.105	1.000	24.48
ATOM	3141	CD	GLU	B	112	40.654	27.199	56.351	1.000	26.29
ATOM	3142	OE1	GLU	B	112	39.501	27.461	56.751	1.000	26.21
ATOM	3143	OE2	GLU	B	112	40.909	26.434	55.398	1.000	31.20
ATOM	3144	C	GLU	B	112	44.592	28.379	58.528	1.000	17.73
ATOM	3145	O	GLU	B	112	44.083	29.339	59.110	1.000	22.88
ATOM	3146	N	TYR	B	113	45.416	27.518	59.101	1.000	16.08
ATOM	3147	CA	TYR	B	113	45.780	27.574	60.502	1.000	21.42
ATOM	3148	CB	TYR	B	113	45.177	26.393	61.277	1.000	23.13
ATOM	3149	CG	TYR	B	113	43.707	26.143	61.023	1.000	21.61
ATOM	3150	CD1	TYR	B	113	43.282	25.255	60.046	1.000	20.99
ATOM	3151	CE1	TYR	B	113	41.933	25.027	59.815	1.000	20.86
ATOM	3152	CZ	TYR	B	113	40.987	25.692	60.567	1.000	21.97
ATOM	3153	OH	TYR	B	113	39.644	25.476	60.352	1.000	20.75
ATOM	3154	CE2	TYR	B	113	41.385	26.582	61.546	1.000	21.97
ATOM	3155	CD2	TYR	B	113	42.735	26.804	61.770	1.000	21.68
ATOM	3156	C	TYR	B	113	47.295	27.552	60.685	1.000	27.43
ATOM	3157	O	TYR	B	113	48.024	26.950	59.899	1.000	18.10
ATOM	3158	N	ILE	B	114	47.733	28.214	61.752	1.000	19.17
ATOM	3159	CA	ILE	B	114	49.024	27.953	62.338	1.000	17.32
ATOM	3160	CB	ILE	B	114	49.919	29.192	62.464	1.000	22.32
ATOM	3161	CG1	ILE	B	114	50.399	29.756	61.124	1.000	15.29
ATOM	3162	CD1	ILE	B	114	50.784	31.212	61.142	1.000	18.68
ATOM	3163	CG2	ILE	B	114	51.079	28.849	63.390	1.000	21.25
ATOM	3164	C	ILE	B	114	48.786	27.336	63.725	1.000	21.28
ATOM	3165	O	ILE	B	114	48.140	27.927	64.594	1.000	17.78
ATOM	3166	N	VAL	B	115	49.305	26.125	63.911	1.000	17.69
ATOM	3167	CA	VAL	B	115	49.196	25.470	65.217	1.000	24.09
ATOM	3168	CB	VAL	B	115	48.867	23.969	65.081	1.000	25.84
ATOM	3169	CG1	VAL	B	115	49.290	23.223	66.338	1.000	28.88
ATOM	3170	CG2	VAL	B	115	47.385	23.774	64.788	1.000	23.07
ATOM	3171	C	VAL	B	115	50.500	25.641	65.985	1.000	22.51

**FIGURE 67**

ATOM	3172	O	VAL	B	115	51.594	25.418	65.450	1.000	14.78
ATOM	3173	N	THR	B	116	50.429	26.049	67.251	1.000	21.02
ATOM	3174	CA	THR	B	116	51.704	26.242	67.962	1.000	19.77
ATOM	3175	CB	THR	B	116	52.149	27.711	67.869	1.000	23.82
ATOM	3176	OG1	THR	B	116	53.495	27.907	68.350	1.000	16.84
ATOM	3177	CG2	THR	B	116	51.242	28.587	68.722	1.000	19.85
ATOM	3178	C	THR	B	116	51.552	25.744	69.390	1.000	22.67
ATOM	3179	O	THR	B	116	50.467	25.376	69.849	1.000	17.14
ATOM	3180	N	GLN	B	117	52.654	25.693	70.119	1.000	23.60
ATOM	3181	CA	GLN	B	117	52.679	25.319	71.514	1.000	23.36
ATOM	3182	CB	GLN	B	117	54.080	24.807	71.898	1.000	24.62
ATOM	3183	CG	GLN	B	117	55.034	25.933	72.239	1.000	18.72
ATOM	3184	CD	GLN	B	117	56.479	25.515	72.375	1.000	26.17
ATOM	3185	OE1	GLN	B	117	56.812	24.331	72.431	1.000	27.92
ATOM	3186	NE2	GLN	B	117	57.357	26.520	72.419	1.000	23.64
ATOM	3187	C	GLN	B	117	52.327	26.512	72.391	1.000	23.75
ATOM	3188	O	GLN	B	117	52.440	27.656	71.939	1.000	18.82
ATOM	3189	N	GLY	B	118	51.927	26.261	73.638	1.000	21.15
ATOM	3190	CA	GLY	B	118	51.716	27.416	74.523	1.000	21.52
ATOM	3191	C	GLY	B	118	53.050	28.104	74.761	1.000	17.96
ATOM	3192	O	GLY	B	118	54.002	27.456	75.207	1.000	23.95
ATOM	3193	N	PRO	B	119	53.131	29.390	74.454	1.000	18.88
ATOM	3194	CA	PRO	B	119	54.401	30.117	74.548	1.000	23.38
ATOM	3195	CB	PRO	B	119	53.993	31.581	74.327	1.000	19.87
ATOM	3196	CG	PRO	B	119	52.757	31.486	73.500	1.000	19.60
ATOM	3197	CD	PRO	B	119	52.031	30.260	74.000	1.000	17.07
ATOM	3198	C	PRO	B	119	55.064	29.980	75.917	1.000	25.74
ATOM	3199	O	PRO	B	119	54.414	29.867	76.952	1.000	21.95
ATOM	3200	N	LEU	B	120	56.384	29.996	75.884	1.000	24.68
ATOM	3201	CA	LEU	B	120	57.259	29.997	77.034	1.000	28.37
ATOM	3202	CB	LEU	B	120	58.542	29.210	76.755	1.000	21.91
ATOM	3203	CG	LEU	B	120	58.366	27.711	76.511	1.000	23.23
ATOM	3204	CD1	LEU	B	120	59.490	27.175	75.642	1.000	25.39
ATOM	3205	CD2	LEU	B	120	58.314	26.965	77.837	1.000	31.44
ATOM	3206	C	LEU	B	120	57.615	31.439	77.377	1.000	22.77
ATOM	3207	O	LEU	B	120	57.514	32.304	76.499	1.000	23.03
ATOM	3208	N	PRO	B	121	58.016	31.692	78.615	1.000	26.35
ATOM	3209	CA	PRO	B	121	58.561	33.014	78.945	1.000	22.57
ATOM	3210	CB	PRO	B	121	59.171	32.787	80.326	1.000	27.81
ATOM	3211	CG	PRO	B	121	58.375	31.675	80.918	1.000	32.45
ATOM	3212	CD	PRO	B	121	57.975	30.783	79.773	1.000	28.73
ATOM	3213	C	PRO	B	121	59.641	33.414	77.943	1.000	28.24
ATOM	3214	O	PRO	B	121	59.741	34.555	77.489	1.000	30.29
ATOM	3215	N	GLY	B	122	60.489	32.450	77.562	1.000	22.78
ATOM	3216	CA	GLY	B	122	61.573	32.788	76.653	1.000	20.37
ATOM	3217	C	GLY	B	122	61.178	32.799	75.191	1.000	28.02
ATOM	3218	O	GLY	B	122	61.990	33.229	74.365	1.000	28.41
ATOM	3219	N	THR	B	123	59.980	32.360	74.810	1.000	27.99
ATOM	3220	CA	THR	B	123	59.604	32.385	73.401	1.000	33.24
ATOM	3221	CB	THR	B	123	59.259	30.981	72.854	1.000	33.57
ATOM	3222	OG1	THR	B	123	58.039	30.554	73.480	1.000	25.65
ATOM	3223	CG2	THR	B	123	60.341	29.968	73.169	1.000	20.05

**FIGURE 68**



ATOM	3224	C	THR	B	123	58.385	33.260	73.106	1.000	29.44
ATOM	3225	O	THR	B	123	57.931	33.303	71.961	1.000	25.91
ATOM	3226	N	LYS	B	124	57.853	33.950	74.105	1.000	26.51
ATOM	3227	CA	LYS	B	124	56.691	34.807	73.893	1.000	28.23
ATOM	3228	CB	LYS	B	124	56.273	35.483	75.199	1.000	32.16
ATOM	3229	CG	LYS	B	124	57.460	35.814	76.097	1.000	43.91
ATOM	3230	CD	LYS	B	124	57.144	37.009	76.981	1.000	56.45
ATOM	3231	CE	LYS	B	124	57.277	36.684	78.458	1.000	47.68
ATOM	3232	NZ	LYS	B	124	56.082	37.130	79.224	1.000	47.04
ATOM	3233	C	LYS	B	124	56.961	35.882	72.845	1.000	31.27
ATOM	3234	O	LYS	B	124	56.010	36.336	72.203	1.000	20.04
ATOM	3235	N	ASP	B	125	58.221	36.273	72.690	1.000	27.24
ATOM	3236	CA	ASP	B	125	58.589	37.344	71.759	1.000	30.97
ATOM	3237	CB	ASP	B	125	59.998	37.856	72.044	1.000	30.13
ATOM	3238	CG	ASP	B	125	60.063	38.882	73.163	1.000	37.62
ATOM	3239	OD1	ASP	B	125	59.010	39.337	73.647	1.000	29.79
ATOM	3240	OD2	ASP	B	125	61.180	39.261	73.577	1.000	55.37
ATOM	3241	C	ASP	B	125	58.486	36.861	70.313	1.000	29.10
ATOM	3242	O	ASP	B	125	58.053	37.590	69.423	1.000	23.13
ATOM	3243	N	ASP	B	126	58.894	35.619	70.119	1.000	29.81
ATOM	3244	CA	ASP	B	126	58.855	34.917	68.846	1.000	29.93
ATOM	3245	CB	ASP	B	126	59.612	33.590	68.923	1.000	33.34
ATOM	3246	CG	ASP	B	126	61.095	33.725	69.208	1.000	42.49
ATOM	3247	OD1	ASP	B	126	61.684	34.754	68.799	1.000	33.29
ATOM	3248	OD2	ASP	B	126	61.666	32.798	69.837	1.000	36.63
ATOM	3249	C	ASP	B	126	57.410	34.663	68.425	1.000	29.50
ATOM	3250	O	ASP	B	126	57.077	34.759	67.243	1.000	23.31
ATOM	3251	N	PHE	B	127	56.556	34.333	69.391	1.000	27.35
ATOM	3252	CA	PHE	B	127	55.135	34.135	69.089	1.000	28.78
ATOM	3253	CB	PHE	B	127	54.360	33.783	70.363	1.000	25.58
ATOM	3254	CG	PHE	B	127	52.860	33.698	70.240	1.000	22.20
ATOM	3255	CD1	PHE	B	127	52.255	32.500	69.878	1.000	21.35
ATOM	3256	CE1	PHE	B	127	50.881	32.398	69.750	1.000	20.50
ATOM	3257	CZ	PHE	B	127	50.087	33.500	70.006	1.000	26.34
ATOM	3258	CE2	PHE	B	127	50.667	34.705	70.361	1.000	17.31
ATOM	3259	CD2	PHE	B	127	52.039	34.789	70.487	1.000	15.23
ATOM	3260	C	PHE	B	127	54.535	35.373	68.426	1.000	22.38
ATOM	3261	O	PHE	B	127	53.905	35.276	67.377	1.000	24.96
ATOM	3262	N	TRP	B	128	54.685	36.549	69.032	1.000	24.70
ATOM	3263	CA	TRP	B	128	54.065	37.773	68.523	1.000	19.09
ATOM	3264	CB	TRP	B	128	54.104	38.859	69.604	1.000	17.25
ATOM	3265	CG	TRP	B	128	53.145	38.614	70.734	1.000	17.80
ATOM	3266	CD1	TRP	B	128	53.470	38.390	72.040	1.000	22.53
ATOM	3267	NE1	TRP	B	128	52.331	38.203	72.789	1.000	21.74
ATOM	3268	CE2	TRP	B	128	51.240	38.303	71.966	1.000	19.23
ATOM	3269	CD2	TRP	B	128	51.714	38.558	70.668	1.000	19.24
ATOM	3270	CE3	TRP	B	128	50.778	38.703	69.637	1.000	28.93
ATOM	3271	CZ3	TRP	B	128	49.429	38.592	69.915	1.000	22.05
ATOM	3272	CH2	TRP	B	128	48.991	38.335	71.226	1.000	17.91
ATOM	3273	CZ2	TRP	B	128	49.878	38.187	72.259	1.000	22.46
ATOM	3274	C	TRP	B	128	54.735	38.234	67.237	1.000	18.56
ATOM	3275	O	TRP	B	128	54.116	38.775	66.322	1.000	21.01

**FIGURE 69**

ATOM	3276	N	LYS	B	129	56.042	38.016	67.133	1.000	13.97
ATOM	3277	CA	LYS	B	129	56.723	38.282	65.866	1.000	15.64
ATOM	3278	CB	LYS	B	129	58.217	37.994	65.979	1.000	22.55
ATOM	3279	CG	LYS	B	129	58.950	37.985	64.651	1.000	39.82
ATOM	3280	CD	LYS	B	129	60.460	38.047	64.814	1.000	48.10
ATOM	3281	CE	LYS	B	129	61.160	37.738	63.491	1.000	52.05
ATOM	3282	NZ	LYS	B	129	62.627	37.573	63.678	1.000	61.20
ATOM	3283	C	LYS	B	129	56.113	37.409	64.776	1.000	27.27
ATOM	3284	O	LYS	B	129	55.893	37.876	63.661	1.000	29.01
ATOM	3285	N	MET	B	130	55.848	36.148	65.124	1.000	29.80
ATOM	3286	CA	MET	B	130	55.154	35.233	64.230	1.000	27.17
ATOM	3287	CB	MET	B	130	54.979	33.827	64.845	1.000	19.02
ATOM	3288	CG	MET	B	130	54.169	32.925	63.904	1.000	19.86
ATOM	3289	SD	MET	B	130	54.092	31.205	64.479	1.000	25.65
ATOM	3290	CE	MET	B	130	52.919	31.427	65.833	1.000	14.58
ATOM	3291	C	MET	B	130	53.777	35.775	63.863	1.000	17.87
ATOM	3292	O	MET	B	130	53.351	35.838	62.715	1.000	21.77
ATOM	3293	N	VAL	B	131	53.029	36.170	64.886	1.000	12.63
ATOM	3294	CA	VAL	B	131	51.706	36.739	64.639	1.000	19.47
ATOM	3295	CB	VAL	B	131	51.028	37.081	65.977	1.000	24.44
ATOM	3296	CG1	VAL	B	131	49.870	38.035	65.754	1.000	20.24
ATOM	3297	CG2	VAL	B	131	50.586	35.801	66.687	1.000	20.58
ATOM	3298	C	VAL	B	131	51.794	37.977	63.748	1.000	29.32
ATOM	3299	O	VAL	B	131	50.974	38.203	62.851	1.000	27.58
ATOM	3300	N	TRP	B	132	52.810	38.804	63.985	1.000	24.33
ATOM	3301	CA	TRP	B	132	52.980	40.015	63.177	1.000	25.60
ATOM	3302	CB	TRP	B	132	54.037	40.918	63.807	1.000	21.12
ATOM	3303	CG	TRP	B	132	54.280	42.211	63.101	1.000	30.16
ATOM	3304	CD1	TRP	B	132	55.382	42.547	62.364	1.000	34.45
ATOM	3305	NE1	TRP	B	132	55.258	43.822	61.863	1.000	35.96
ATOM	3306	CE2	TRP	B	132	54.059	44.338	62.273	1.000	34.79
ATOM	3307	CD2	TRP	B	132	53.417	43.354	63.054	1.000	29.88
ATOM	3308	CE3	TRP	B	132	52.159	43.629	63.598	1.000	23.47
ATOM	3309	CZ3	TRP	B	132	51.604	44.866	63.343	1.000	29.19
ATOM	3310	CH2	TRP	B	132	52.271	45.821	62.564	1.000	30.89
ATOM	3311	CZ2	TRP	B	132	53.499	45.590	62.016	1.000	31.90
ATOM	3312	C	TRP	B	132	53.348	39.679	61.736	1.000	27.64
ATOM	3313	O	TRP	B	132	52.732	40.210	60.809	1.000	25.13
ATOM	3314	N	GLU	B	133	54.336	38.817	61.516	1.000	19.97
ATOM	3315	CA	GLU	B	133	54.803	38.528	60.167	1.000	21.72
ATOM	3316	CB	GLU	B	133	56.122	37.762	60.268	1.000	25.50
ATOM	3317	CG	GLU	B	133	57.215	38.565	60.953	1.000	21.80
ATOM	3318	CD	GLU	B	133	58.525	37.797	60.960	1.000	30.30
ATOM	3319	OE1	GLU	B	133	58.479	36.560	60.767	1.000	25.13
ATOM	3320	OE2	GLU	B	133	59.568	38.461	61.151	1.000	35.58
ATOM	3321	C	GLU	B	133	53.810	37.732	59.339	1.000	28.77
ATOM	3322	O	GLU	B	133	53.729	37.935	58.127	1.000	26.53
ATOM	3323	N	GLN	B	134	53.050	36.828	59.957	1.000	25.47
ATOM	3324	CA	GLN	B	134	52.103	36.010	59.204	1.000	24.21
ATOM	3325	CB	GLN	B	134	51.962	34.639	59.875	1.000	30.73
ATOM	3326	CG	GLN	B	134	53.313	33.951	60.093	1.000	29.62
ATOM	3327	CD	GLN	B	134	53.852	33.400	58.783	1.000	30.05

**FIGURE 70**

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ATOM	3328	OE1	GLN	B	134	53.182	32.656	58.068	1.000	33.53
ATOM	3329	NE2	GLN	B	134	55.080	33.772	58.460	1.000	33.18
ATOM	3330	C	GLN	B	134	50.739	36.668	59.092	1.000	26.45
ATOM	3331	O	GLN	B	134	49.769	36.050	58.640	1.000	25.94
ATOM	3332	N	ASN	B	135	50.646	37.924	59.510	1.000	24.63
ATOM	3333	CA	ASN	B	135	49.405	38.687	59.374	1.000	25.47
ATOM	3334	CB	ASN	B	135	49.089	38.902	57.885	1.000	27.21
ATOM	3335	CG	ASN	B	135	49.300	40.369	57.529	1.000	46.77
ATOM	3336	OD1	ASN	B	135	48.353	41.121	57.307	1.000	69.94
ATOM	3337	ND2	ASN	B	135	50.565	40.770	57.500	1.000	36.37
ATOM	3338	C	ASN	B	135	48.223	38.027	60.069	1.000	31.62
ATOM	3339	O	ASN	B	135	47.088	38.019	59.589	1.000	28.84
ATOM	3340	N	VAL	B	136	48.484	37.467	61.246	1.000	27.43
ATOM	3341	CA	VAL	B	136	47.416	36.859	62.032	1.000	24.98
ATOM	3342	CB	VAL	B	136	48.035	36.029	63.179	1.000	20.72
ATOM	3343	CG1	VAL	B	136	46.958	35.491	64.102	1.000	26.47
ATOM	3344	CG2	VAL	B	136	48.887	34.909	62.599	1.000	13.70
ATOM	3345	C	VAL	B	136	46.469	37.891	62.619	1.000	23.98
ATOM	3346	O	VAL	B	136	46.875	38.904	63.196	1.000	19.31
ATOM	3347	N	HIS	B	137	45.165	37.662	62.502	1.000	24.96
ATOM	3348	CA	HIS	B	137	44.208	38.529	63.180	1.000	24.73
ATOM	3349	CB	HIS	B	137	43.215	39.124	62.170	1.000	30.08
ATOM	3350	CG	HIS	B	137	43.872	40.090	61.240	1.000	35.97
ATOM	3351	ND1	HIS	B	137	43.604	41.435	61.247	1.000	47.37
ATOM	3352	CE1	HIS	B	137	44.338	42.022	60.314	1.000	50.81
ATOM	3353	NE2	HIS	B	137	45.073	41.107	59.706	1.000	44.95
ATOM	3354	CD2	HIS	B	137	44.799	39.891	60.275	1.000	40.02
ATOM	3355	C	HIS	B	137	43.407	37.801	64.253	1.000	21.29
ATOM	3356	O	HIS	B	137	42.727	38.467	65.026	1.000	27.23
ATOM	3357	N	ASN	B	138	43.469	36.470	64.274	1.000	22.17
ATOM	3358	CA	ASN	B	138	42.685	35.702	65.233	1.000	20.26
ATOM	3359	CB	ASN	B	138	41.491	35.030	64.534	1.000	26.81
ATOM	3360	CG	ASN	B	138	40.525	36.056	63.968	1.000	33.07
ATOM	3361	OD1	ASN	B	138	40.383	36.164	62.750	1.000	31.33
ATOM	3362	ND2	ASN	B	138	39.869	36.819	64.842	1.000	20.76
ATOM	3363	C	ASN	B	138	43.540	34.655	65.938	1.000	23.24
ATOM	3364	O	ASN	B	138	44.238	33.895	65.262	1.000	18.61
ATOM	3365	N	ILE	B	139	43.462	34.638	67.266	1.000	19.79
ATOM	3366	CA	ILE	B	139	44.122	33.625	68.077	1.000	25.68
ATOM	3367	CB	ILE	B	139	45.258	34.217	68.934	1.000	29.82
ATOM	3368	CG1	ILE	B	139	46.318	34.945	68.101	1.000	41.20
ATOM	3369	CD1	ILE	B	139	47.149	35.964	68.850	1.000	20.87
ATOM	3370	CG2	ILE	B	139	45.900	33.146	69.806	1.000	14.95
ATOM	3371	C	ILE	B	139	43.126	32.902	68.985	1.000	24.46
ATOM	3372	O	ILE	B	139	42.278	33.526	69.624	1.000	24.46
ATOM	3373	N	VAL	B	140	43.264	31.585	69.008	1.000	19.79
ATOM	3374	CA	VAL	B	140	42.449	30.644	69.744	1.000	20.63
ATOM	3375	CB	VAL	B	140	41.747	29.622	68.832	1.000	28.33
ATOM	3376	CG1	VAL	B	140	41.044	28.585	69.698	1.000	19.08
ATOM	3377	CG2	VAL	B	140	40.773	30.296	67.875	1.000	24.28
ATOM	3378	C	VAL	B	140	43.320	29.857	70.731	1.000	24.37
ATOM	3379	O	VAL	B	140	44.279	29.223	70.306	1.000	18.12

**FIGURE 71**

ATOM	3380	N	MET B 141	42.990	29.911	72.007	1.000	26.02
ATOM	3381	CA	MET B 141	43.681	29.264	73.114	1.000	26.63
ATOM	3382	CB	MET B 141	44.180	30.349	74.076	1.000	21.56
ATOM	3383	CG	MET B 141	44.895	29.837	75.314	1.000	23.47
ATOM	3384	SD	MET B 141	45.830	31.148	76.140	1.000	25.00
ATOM	3385	CE	MET B 141	46.435	30.216	77.558	1.000	23.28
ATOM	3386	C	MET B 141	42.749	28.270	73.801	1.000	21.18
ATOM	3387	O	MET B 141	41.699	28.664	74.320	1.000	21.43
ATOM	3388	N	VAL B 142	43.079	26.991	73.799	1.000	20.95
ATOM	3389	CA	VAL B 142	42.221	25.959	74.364	1.000	24.30
ATOM	3390	CB	VAL B 142	41.813	24.856	73.371	1.000	21.57
ATOM	3391	CG1	VAL B 142	40.925	25.432	72.277	1.000	44.18
ATOM	3392	CG2	VAL B 142	43.039	24.197	72.760	1.000	32.97
ATOM	3393	C	VAL B 142	42.918	25.273	75.538	1.000	24.63
ATOM	3394	O	VAL B 142	42.870	24.057	75.706	1.000	36.20
ATOM	3395	N	THR B 143	43.566	26.104	76.333	1.000	27.52
ATOM	3396	CA	THR B 143	44.179	25.667	77.575	1.000	32.61
ATOM	3397	CB	THR B 143	45.641	25.224	77.402	1.000	33.85
ATOM	3398	OG1	THR B 143	46.111	24.687	78.647	1.000	32.96
ATOM	3399	CG2	THR B 143	46.518	26.417	77.065	1.000	21.18
ATOM	3400	C	THR B 143	44.152	26.815	78.577	1.000	28.98
ATOM	3401	O	THR B 143	44.172	27.975	78.178	1.000	26.70
ATOM	3402	N	GLN B 144	44.115	26.478	79.855	1.000	26.36
ATOM	3403	CA	GLN B 144	44.388	27.496	80.868	1.000	31.26
ATOM	3404	CB	GLN B 144	43.644	27.201	82.158	1.000	36.91
ATOM	3405	CG	GLN B 144	42.161	27.541	82.146	1.000	45.71
ATOM	3406	CD	GLN B 144	41.465	27.010	83.387	1.000	58.10
ATOM	3407	OE1	GLN B 144	41.528	27.640	84.446	1.000	62.95
ATOM	3408	NE2	GLN B 144	40.807	25.859	83.268	1.000	68.48
ATOM	3409	C	GLN B 144	45.899	27.536	81.085	1.000	30.16
ATOM	3410	O	GLN B 144	46.586	26.558	80.764	1.000	23.48
ATOM	3411	N	CYS B 145	46.426	28.637	81.607	1.000	23.70
ATOM	3412	CA	CYS B 145	47.868	28.723	81.803	1.000	23.35
ATOM	3413	CB	CYS B 145	48.244	30.127	82.276	1.000	17.96
ATOM	3414	SG	CYS B 145	48.066	31.371	80.965	1.000	36.78
ATOM	3415	C	CYS B 145	48.383	27.692	82.799	1.000	29.59
ATOM	3416	O	CYS B 145	49.493	27.168	82.657	1.000	29.74
ATOM	3417	N	VAL B 146	47.547	27.437	83.792	1.000	26.86
ATOM	3418	CA	VAL B 146	47.809	26.499	84.877	1.000	25.79
ATOM	3419	CB	VAL B 146	48.125	27.210	86.202	1.000	30.10
ATOM	3420	CG1	VAL B 146	48.824	26.274	87.179	1.000	28.99
ATOM	3421	CG2	VAL B 146	48.980	28.443	85.953	1.000	32.92
ATOM	3422	C	VAL B 146	46.606	25.573	85.059	1.000	20.95
ATOM	3423	O	VAL B 146	45.458	25.979	85.215	1.000	28.86
ATOM	3424	N	GLU B 147	46.878	24.288	85.002	1.000	24.41
ATOM	3425	CA	GLU B 147	45.881	23.235	85.161	1.000	40.57
ATOM	3426	CB	GLU B 147	45.538	22.562	83.839	1.000	35.73
ATOM	3427	CG	GLU B 147	44.603	23.349	82.943	1.000	41.76
ATOM	3428	CD	GLU B 147	44.308	22.690	81.610	1.000	45.31
ATOM	3429	OE1	GLU B 147	44.722	21.531	81.403	1.000	43.78
ATOM	3430	OE2	GLU B 147	43.653	23.322	80.749	1.000	28.21
ATOM	3431	C	GLU B 147	46.496	22.288	86.182	1.000	45.18

FIGURE 72

ATOM	3432	O	GLU	B	147	47.457	21.558	85.926	1.000	48.42
ATOM	3433	N	LYS	B	148	45.992	22.325	87.419	1.000	49.18
ATOM	3434	CA	LYS	B	148	46.881	21.658	88.390	1.000	54.02
ATOM	3435	CB	LYS	B	148	46.836	22.434	89.703	1.000	46.43
ATOM	3436	CG	LYS	B	148	48.184	23.017	90.088	1.000	42.28
ATOM	3437	CD	LYS	B	148	49.019	23.482	88.921	1.000	48.15
ATOM	3438	CE	LYS	B	148	50.503	23.260	89.180	1.000	46.56
ATOM	3439	NZ	LYS	B	148	51.361	24.153	88.358	1.000	39.33
ATOM	3440	C	LYS	B	148	46.554	20.182	88.515	1.000	54.15
ATOM	3441	O	LYS	B	148	45.415	19.737	88.387	1.000	67.03
ATOM	3442	N	GLY	B	149	47.628	19.428	88.760	1.000	52.37
ATOM	3443	CA	GLY	B	149	48.941	20.037	88.892	1.000	55.56
ATOM	3444	C	GLY	B	149	49.697	20.137	87.583	1.000	63.58
ATOM	3445	O	GLY	B	149	50.182	19.100	87.123	1.000	62.06
ATOM	3446	N	ARG	B	150	49.813	21.330	86.999	1.000	67.43
ATOM	3447	CA	ARG	B	150	50.589	21.516	85.780	1.000	68.36
ATOM	3448	CB	ARG	B	150	50.037	20.536	84.725	1.000	77.22
ATOM	3449	CG	ARG	B	150	50.929	19.341	84.438	1.000	76.56
ATOM	3450	CD	ARG	B	150	52.223	19.406	85.233	1.000	73.15
ATOM	3451	NE	ARG	B	150	53.346	19.893	84.431	1.000	71.83
ATOM	3452	CZ	ARG	B	150	54.098	19.105	83.668	1.000	75.97
ATOM	3453	NH1	ARG	B	150	53.840	17.803	83.608	1.000	77.01
ATOM	3454	NH2	ARG	B	150	55.103	19.611	82.967	1.000	68.43
ATOM	3455	C	ARG	B	150	50.600	22.925	85.204	1.000	53.31
ATOM	3456	O	ARG	B	150	49.604	23.442	84.687	1.000	35.27
ATOM	3457	N	VAL	B	151	51.750	23.608	85.234	1.000	34.49
ATOM	3458	CA	VAL	B	151	51.924	24.799	84.411	1.000	38.16
ATOM	3459	CB	VAL	B	151	53.297	25.469	84.557	1.000	41.62
ATOM	3460	CG1	VAL	B	151	53.498	26.491	83.437	1.000	40.64
ATOM	3461	CG2	VAL	B	151	53.471	26.163	85.899	1.000	39.00
ATOM	3462	C	VAL	B	151	51.760	24.387	82.945	1.000	41.12
ATOM	3463	O	VAL	B	151	52.372	23.400	82.525	1.000	39.66
ATOM	3464	N	LYS	B	152	50.959	25.079	82.142	1.000	33.45
ATOM	3465	CA	LYS	B	152	50.754	24.596	80.776	1.000	28.24
ATOM	3466	CB	LYS	B	152	49.302	24.144	80.591	1.000	34.13
ATOM	3467	CG	LYS	B	152	48.830	23.155	81.645	1.000	34.20
ATOM	3468	CD	LYS	B	152	49.804	22.001	81.780	1.000	38.68
ATOM	3469	CE	LYS	B	152	49.120	20.664	81.549	1.000	48.80
ATOM	3470	NZ	LYS	B	152	50.119	19.577	81.342	1.000	72.66
ATOM	3471	C	LYS	B	152	51.098	25.644	79.729	1.000	31.18
ATOM	3472	O	LYS	B	152	51.407	25.310	78.584	1.000	33.64
ATOM	3473	N	CYS	B	153	51.049	26.923	80.090	1.000	27.35
ATOM	3474	CA	CYS	B	153	51.346	27.960	79.093	1.000	22.51
ATOM	3475	CB	CYS	B	153	50.165	28.100	78.150	1.000	16.46
ATOM	3476	SG	CYS	B	153	50.211	29.416	76.916	1.000	26.45
ATOM	3477	C	CYS	B	153	51.678	29.265	79.801	1.000	31.82
ATOM	3478	O	CYS	B	153	51.084	29.606	80.822	1.000	28.53
ATOM	3479	N	ASP	B	154	52.637	30.023	79.279	1.000	33.07
ATOM	3480	CA	ASP	B	154	52.907	31.332	79.858	1.000	35.38
ATOM	3481	CB	ASP	B	154	54.191	31.929	79.261	1.000	35.82
ATOM	3482	CG	ASP	B	154	54.817	32.947	80.200	1.000	41.73
ATOM	3483	OD1	ASP	B	154	56.002	33.296	80.044	1.000	63.43

**FIGURE 73**

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ATOM	3484	OD2	ASP	B	154	54.104	33.398	81.117	1.000	50.87
ATOM	3485	C	ASP	B	154	51.735	32.287	79.642	1.000	41.87
ATOM	3486	O	ASP	B	154	50.951	32.111	78.703	1.000	33.32
ATOM	3487	N	HIS	B	155	51.623	33.296	80.509	1.000	35.60
ATOM	3488	CA	HIS	B	155	50.654	34.375	80.304	1.000	37.44
ATOM	3489	CB	HIS	B	155	50.312	35.059	81.628	1.000	36.58
ATOM	3490	CG	HIS	B	155	49.205	36.062	81.526	1.000	32.90
ATOM	3491	ND1	HIS	B	155	47.930	35.814	82.000	1.000	29.00
ATOM	3492	CE1	HIS	B	155	47.168	36.872	81.774	1.000	30.32
ATOM	3493	NE2	HIS	B	155	47.903	37.796	81.172	1.000	34.71
ATOM	3494	CD2	HIS	B	155	49.182	37.312	81.009	1.000	27.70
ATOM	3495	C	HIS	B	155	51.236	35.374	79.311	1.000	36.71
ATOM	3496	O	HIS	B	155	51.750	36.422	79.691	1.000	42.00
ATOM	3497	N	TYR	B	156	51.192	35.068	78.016	1.000	29.11
ATOM	3498	CA	TYR	B	156	52.011	35.820	77.081	1.000	24.84
ATOM	3499	CB	TYR	B	156	52.303	34.932	75.855	1.000	27.19
ATOM	3500	CG	TYR	B	156	51.050	34.394	75.208	1.000	24.09
ATOM	3501	CD1	TYR	B	156	50.488	35.051	74.120	1.000	16.98
ATOM	3502	CE1	TYR	B	156	49.344	34.554	73.528	1.000	17.14
ATOM	3503	CZ	TYR	B	156	48.745	33.407	73.996	1.000	25.77
ATOM	3504	OH	TYR	B	156	47.596	32.928	73.387	1.000	23.27
ATOM	3505	CE2	TYR	B	156	49.294	32.745	75.074	1.000	27.41
ATOM	3506	CD2	TYR	B	156	50.439	33.238	75.672	1.000	27.13
ATOM	3507	C	TYR	B	156	51.409	37.129	76.615	1.000	23.96
ATOM	3508	O	TYR	B	156	51.948	37.722	75.673	1.000	30.34
ATOM	3509	N	TRP	B	157	50.332	37.596	77.228	1.000	29.38
ATOM	3510	CA	TRP	B	157	49.801	38.920	76.885	1.000	30.99
ATOM	3511	CB	TRP	B	157	48.389	38.798	76.324	1.000	35.30
ATOM	3512	CG	TRP	B	157	47.436	38.178	77.304	1.000	37.36
ATOM	3513	CD1	TRP	B	157	46.608	38.819	78.180	1.000	32.25
ATOM	3514	NE1	TRP	B	157	45.897	37.886	78.896	1.000	33.37
ATOM	3515	CE2	TRP	B	157	46.257	36.626	78.495	1.000	24.24
ATOM	3516	CD2	TRP	B	157	47.227	36.772	77.488	1.000	31.89
ATOM	3517	CE3	TRP	B	157	47.774	35.630	76.894	1.000	32.73
ATOM	3518	CZ3	TRP	B	157	47.334	34.394	77.324	1.000	31.61
ATOM	3519	CH2	TRP	B	157	46.366	34.269	78.328	1.000	31.07
ATOM	3520	CZ2	TRP	B	157	45.819	35.378	78.923	1.000	30.59
ATOM	3521	C	TRP	B	157	49.806	39.815	78.116	1.000	33.23
ATOM	3522	O	TRP	B	157	50.003	39.308	79.229	1.000	47.58
ATOM	3523	N	PRO	B	158	49.613	41.119	77.999	1.000	35.32
ATOM	3524	CA	PRO	B	158	49.665	41.957	79.206	1.000	42.97
ATOM	3525	CB	PRO	B	158	49.605	43.384	78.670	1.000	36.94
ATOM	3526	CG	PRO	B	158	49.779	43.296	77.200	1.000	32.51
ATOM	3527	CD	PRO	B	158	49.347	41.916	76.793	1.000	36.20
ATOM	3528	C	PRO	B	158	48.468	41.701	80.128	1.000	58.41
ATOM	3529	O	PRO	B	158	47.343	41.559	79.645	1.000	65.51
ATOM	3530	N	ALA	B	159	48.739	41.658	81.422	1.000	68.74
ATOM	3531	CA	ALA	B	159	47.823	41.404	82.518	1.000	64.94
ATOM	3532	CB	ALA	B	159	48.387	41.972	83.819	1.000	34.74
ATOM	3533	C	ALA	B	159	46.428	41.975	82.282	1.000	65.31
ATOM	3534	O	ALA	B	159	45.468	41.222	82.121	1.000	68.71
ATOM	3535	N	ASP	B	160	46.330	43.297	82.278	1.000	66.84

**FIGURE 74**

ATOM	3536	CA	ASP	B	160	45.079	44.010	82.063	1.000	69.30
ATOM	3537	CB	ASP	B	160	44.668	44.824	83.286	1.000	73.78
ATOM	3538	CG	ASP	B	160	45.671	44.813	84.417	1.000	78.54
ATOM	3539	OD1	ASP	B	160	46.696	45.535	84.324	1.000	85.06
ATOM	3540	OD2	ASP	B	160	45.449	44.083	85.410	1.000	82.66
ATOM	3541	C	ASP	B	160	45.199	44.934	80.850	1.000	70.60
ATOM	3542	O	ASP	B	160	45.922	44.612	79.904	1.000	80.81
ATOM	3543	N	GLN	B	161	44.503	46.063	80.897	1.000	65.68
ATOM	3544	CA	GLN	B	161	44.460	47.034	79.813	1.000	60.98
ATOM	3545	CB	GLN	B	161	43.341	48.054	80.079	1.000	66.64
ATOM	3546	CG	GLN	B	161	41.977	47.435	80.326	1.000	70.82
ATOM	3547	CD	GLN	B	161	41.431	46.682	79.129	1.000	73.10
ATOM	3548	OE1	GLN	B	161	41.858	46.906	77.995	1.000	91.18
ATOM	3549	NE2	GLN	B	161	40.481	45.781	79.367	1.000	51.42
ATOM	3550	C	GLN	B	161	45.774	47.770	79.607	1.000	52.94
ATOM	3551	O	GLN	B	161	45.860	48.713	78.819	1.000	46.56
ATOM	3552	N	ASP	B	162	46.841	47.376	80.294	1.000	57.53
ATOM	3553	CA	ASP	B	162	48.126	48.048	80.111	1.000	53.21
ATOM	3554	CB	ASP	B	162	49.080	47.691	81.251	1.000	60.81
ATOM	3555	CG	ASP	B	162	49.331	46.204	81.393	1.000	64.03
ATOM	3556	OD1	ASP	B	162	48.588	45.415	80.770	1.000	73.29
ATOM	3557	OD2	ASP	B	162	50.272	45.829	82.129	1.000	52.70
ATOM	3558	C	ASP	B	162	48.742	47.700	78.759	1.000	46.46
ATOM	3559	O	ASP	B	162	48.083	47.149	77.874	1.000	52.43
ATOM	3560	N	SER	B	163	50.014	48.039	78.604	1.000	36.08
ATOM	3561	CA	SER	B	163	50.763	47.761	77.385	1.000	30.11
ATOM	3562	CB	SER	B	163	50.905	49.014	76.523	1.000	37.96
ATOM	3563	OG	SER	B	163	51.383	50.101	77.295	1.000	38.12
ATOM	3564	C	SER	B	163	52.141	47.223	77.724	1.000	31.57
ATOM	3565	O	SER	B	163	52.646	47.355	78.838	1.000	35.55
ATOM	3566	N	LEU	B	164	52.776	46.591	76.741	1.000	30.19
ATOM	3567	CA	LEU	B	164	54.081	46.002	77.023	1.000	21.86
ATOM	3568	CB	LEU	B	164	53.918	44.691	77.779	1.000	37.42
ATOM	3569	CG	LEU	B	164	53.641	44.732	79.281	1.000	38.91
ATOM	3570	CD1	LEU	B	164	53.495	43.319	79.843	1.000	28.89
ATOM	3571	CD2	LEU	B	164	54.736	45.470	80.031	1.000	42.72
ATOM	3572	C	LEU	B	164	54.822	45.780	75.715	1.000	27.76
ATOM	3573	O	LEU	B	164	54.201	45.635	74.660	1.000	28.16
ATOM	3574	N	TYR	B	165	56.150	45.767	75.799	1.000	29.39
ATOM	3575	CA	TYR	B	165	56.959	45.469	74.631	1.000	27.11
ATOM	3576	CB	TYR	B	165	58.338	46.113	74.728	1.000	24.50
ATOM	3577	CG	TYR	B	165	58.373	47.576	74.362	1.000	33.29
ATOM	3578	CD1	TYR	B	165	58.505	47.926	73.022	1.000	27.89
ATOM	3579	CE1	TYR	B	165	58.538	49.248	72.635	1.000	31.36
ATOM	3580	CZ	TYR	B	165	58.443	50.244	73.581	1.000	24.85
ATOM	3581	OH	TYR	B	165	58.487	51.546	73.139	1.000	26.61
ATOM	3582	CE2	TYR	B	165	58.309	49.930	74.915	1.000	28.53
ATOM	3583	CD2	TYR	B	165	58.271	48.594	75.307	1.000	28.19
ATOM	3584	C	TYR	B	165	57.109	43.955	74.503	1.000	32.17
ATOM	3585	O	TYR	B	165	57.195	43.254	75.511	1.000	29.95
ATOM	3586	N	TYR	B	166	57.152	43.472	73.271	1.000	28.70
ATOM	3587	CA	TYR	B	166	57.498	42.072	73.035	1.000	27.96

**FIGURE 75**

ATOM	3588	CB	TYR	B	166	56.268	41.232	72.710	1.000	29.27
ATOM	3589	CG	TYR	B	166	55.350	41.031	73.899	1.000	32.16
ATOM	3590	CD1	TYR	B	166	55.542	39.987	74.805	1.000	27.15
ATOM	3591	CE1	TYR	B	166	54.689	39.821	75.884	1.000	26.48
ATOM	3592	CZ	TYR	B	166	53.637	40.699	76.065	1.000	31.42
ATOM	3593	OH	TYR	B	166	52.780	40.552	77.133	1.000	26.92
ATOM	3594	CE2	TYR	B	166	53.427	41.738	75.182	1.000	25.16
ATOM	3595	CD2	TYR	B	166	54.282	41.897	74.107	1.000	30.85
ATOM	3596	C	TYR	B	166	58.533	42.065	71.926	1.000	23.40
ATOM	3597	O	TYR	B	166	58.221	42.038	70.746	1.000	29.44
ATOM	3598	N	GLY	B	167	59.815	42.124	72.303	1.000	30.73
ATOM	3599	CA	GLY	B	167	60.795	42.293	71.225	1.000	31.29
ATOM	3600	C	GLY	B	167	60.629	43.677	70.620	1.000	34.66
ATOM	3601	O	GLY	B	167	60.636	44.683	71.340	1.000	26.60
ATOM	3602	N	ASP	B	168	60.475	43.757	69.302	1.000	29.65
ATOM	3603	CA	ASP	B	168	60.388	45.070	68.660	1.000	31.97
ATOM	3604	CB	ASP	B	168	61.050	45.062	67.282	1.000	30.77
ATOM	3605	CG	ASP	B	168	62.559	44.932	67.417	1.000	44.29
ATOM	3606	OD1	ASP	B	168	63.059	45.103	68.550	1.000	70.44
ATOM	3607	OD2	ASP	B	168	63.238	44.655	66.411	1.000	63.44
ATOM	3608	C	ASP	B	168	58.935	45.510	68.551	1.000	32.07
ATOM	3609	O	ASP	B	168	58.619	46.594	68.076	1.000	32.90
ATOM	3610	N	LEU	B	169	58.073	44.613	69.025	1.000	29.35
ATOM	3611	CA	LEU	B	169	56.648	44.870	68.984	1.000	33.24
ATOM	3612	CB	LEU	B	169	55.877	43.576	68.686	1.000	30.90
ATOM	3613	CG	LEU	B	169	56.205	42.932	67.336	1.000	32.40
ATOM	3614	CD1	LEU	B	169	55.292	41.738	67.129	1.000	26.83
ATOM	3615	CD2	LEU	B	169	56.082	43.955	66.219	1.000	27.58
ATOM	3616	C	LEU	B	169	56.111	45.433	70.294	1.000	32.00
ATOM	3617	O	LEU	B	169	56.642	45.147	71.365	1.000	27.18
ATOM	3618	N	ILE	B	170	55.042	46.205	70.127	1.000	23.43
ATOM	3619	CA	ILE	B	170	54.297	46.711	71.263	1.000	37.97
ATOM	3620	CB	ILE	B	170	54.333	48.242	71.369	1.000	44.96
ATOM	3621	CG1	ILE	B	170	53.206	48.832	72.219	1.000	51.13
ATOM	3622	CD1	ILE	B	170	53.662	49.989	73.089	1.000	79.46
ATOM	3623	CG2	ILE	B	170	54.345	48.876	69.991	1.000	56.59
ATOM	3624	C	ILE	B	170	52.851	46.228	71.147	1.000	36.98
ATOM	3625	O	ILE	B	170	52.247	46.337	70.083	1.000	29.48
ATOM	3626	N	LEU	B	171	52.367	45.700	72.258	1.000	37.92
ATOM	3627	CA	LEU	B	171	51.015	45.200	72.405	1.000	39.12
ATOM	3628	CB	LEU	B	171	51.037	43.709	72.767	1.000	46.39
ATOM	3629	CG	LEU	B	171	50.043	42.860	71.971	1.000	52.95
ATOM	3630	CD1	LEU	B	171	50.694	41.558	71.563	1.000	42.82
ATOM	3631	CD2	LEU	B	171	48.783	42.619	72.784	1.000	80.84
ATOM	3632	C	LEU	B	171	50.235	45.939	73.482	1.000	37.92
ATOM	3633	O	LEU	B	171	50.744	46.261	74.556	1.000	41.84
ATOM	3634	N	GLN	B	172	48.962	46.207	73.191	1.000	33.26
ATOM	3635	CA	GLN	B	172	48.132	46.767	74.257	1.000	42.90
ATOM	3636	CB	GLN	B	172	47.929	48.272	74.095	1.000	43.81
ATOM	3637	CG	GLN	B	172	46.841	48.669	73.123	1.000	44.65
ATOM	3638	CD	GLN	B	172	46.760	50.170	72.905	1.000	41.71
ATOM	3639	OE1	GLN	B	172	47.004	50.675	71.809	1.000	39.38

**FIGURE 76**



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ATOM	3640	NE2	GLN	B	172	46.410	50.886	73.963	1.000	51.04
ATOM	3641	C	GLN	B	172	46.800	46.028	74.274	1.000	36.46
ATOM	3642	O	GLN	B	172	46.205	45.820	73.214	1.000	30.33
ATOM	3643	N	MET	B	173	46.349	45.629	75.460	1.000	34.57
ATOM	3644	CA	MET	B	173	45.024	45.020	75.526	1.000	37.82
ATOM	3645	CB	MET	B	173	44.827	44.177	76.786	1.000	44.70
ATOM	3646	CG	MET	B	173	43.371	44.165	77.243	1.000	48.88
ATOM	3647	SD	MET	B	173	43.091	43.051	78.637	1.000	61.82
ATOM	3648	CE	MET	B	173	43.023	41.490	77.765	1.000	30.24
ATOM	3649	C	MET	B	173	43.960	46.115	75.496	1.000	37.98
ATOM	3650	O	MET	B	173	43.913	46.968	76.387	1.000	50.74
ATOM	3651	N	LEU	B	174	43.116	46.087	74.476	1.000	39.28
ATOM	3652	CA	LEU	B	174	42.041	47.069	74.379	1.000	40.72
ATOM	3653	CB	LEU	B	174	41.705	47.353	72.911	1.000	40.97
ATOM	3654	CG	LEU	B	174	42.894	47.860	72.084	1.000	48.67
ATOM	3655	CD1	LEU	B	174	42.466	48.190	70.666	1.000	63.07
ATOM	3656	CD2	LEU	B	174	43.524	49.058	72.778	1.000	40.09
ATOM	3657	C	LEU	B	174	40.794	46.608	75.113	1.000	37.13
ATOM	3658	O	LEU	B	174	39.994	47.450	75.515	1.000	41.98
ATOM	3659	N	SER	B	175	40.613	45.295	75.288	1.000	36.81
ATOM	3660	CA	SER	B	175	39.379	44.856	75.936	1.000	37.02
ATOM	3661	CB	SER	B	175	38.204	45.077	74.978	1.000	39.53
ATOM	3662	OG	SER	B	175	38.164	44.075	73.975	1.000	60.16
ATOM	3663	C	SER	B	175	39.419	43.397	76.372	1.000	43.07
ATOM	3664	O	SER	B	175	40.144	42.583	75.801	1.000	35.52
ATOM	3665	N	GLU	B	176	38.616	43.077	77.387	1.000	36.53
ATOM	3666	CA	GLU	B	176	38.525	41.721	77.899	1.000	37.42
ATOM	3667	CB	GLU	B	176	39.524	41.528	79.050	1.000	29.90
ATOM	3668	CG	GLU	B	176	39.524	40.101	79.570	1.000	36.55
ATOM	3669	CD	GLU	B	176	40.377	39.924	80.806	1.000	41.20
ATOM	3670	OE1	GLU	B	176	39.808	39.980	81.913	1.000	65.49
ATOM	3671	OE2	GLU	B	176	41.602	39.726	80.667	1.000	51.95
ATOM	3672	C	GLU	B	176	37.120	41.366	78.371	1.000	42.69
ATOM	3673	O	GLU	B	176	36.658	41.868	79.400	1.000	44.27
ATOM	3674	N	SER	B	177	36.434	40.496	77.627	1.000	39.90
ATOM	3675	CA	SER	B	177	35.073	40.107	77.983	1.000	35.04
ATOM	3676	CB	SER	B	177	34.101	40.295	76.816	1.000	36.67
ATOM	3677	OG	SER	B	177	34.475	41.395	76.007	1.000	52.82
ATOM	3678	C	SER	B	177	35.030	38.658	78.448	1.000	41.90
ATOM	3679	O	SER	B	177	35.160	37.715	77.669	1.000	42.75
ATOM	3680	N	VAL	B	178	34.840	38.482	79.750	1.000	40.45
ATOM	3681	CA	VAL	B	178	34.819	37.128	80.295	1.000	49.91
ATOM	3682	CB	VAL	B	178	35.272	37.144	81.768	1.000	56.06
ATOM	3683	CG1	VAL	B	178	35.518	35.735	82.276	1.000	36.78
ATOM	3684	CG2	VAL	B	178	36.520	38.006	81.909	1.000	58.94
ATOM	3685	C	VAL	B	178	33.439	36.509	80.163	1.000	50.01
ATOM	3686	O	VAL	B	178	32.445	37.037	80.659	1.000	63.04
ATOM	3687	N	LEU	B	179	33.372	35.372	79.478	1.000	45.68
ATOM	3688	CA	LEU	B	179	32.098	34.653	79.362	1.000	38.65
ATOM	3689	CB	LEU	B	179	31.753	34.401	77.900	1.000	37.56
ATOM	3690	CG	LEU	B	179	30.892	35.472	77.222	1.000	42.61
ATOM	3691	CD1	LEU	B	179	30.991	36.805	77.946	1.000	33.74

**FIGURE 77**

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ATOM	3692	CD2	LEU	B	179	31.286	35.631	75.766	1.000	47.05
ATOM	3693	C	LEU	B	179	32.206	33.383	80.189	1.000	30.01
ATOM	3694	O	LEU	B	179	33.317	33.035	80.611	1.000	33.11
ATOM	3695	N	PRO	B	180	31.108	32.694	80.467	1.000	44.43
ATOM	3696	CA	PRO	B	180	31.210	31.516	81.345	1.000	49.89
ATOM	3697	CB	PRO	B	180	29.766	31.004	81.441	1.000	47.48
ATOM	3698	CG	PRO	B	180	28.932	32.194	81.096	1.000	47.96
ATOM	3699	CD	PRO	B	180	29.720	32.929	80.038	1.000	48.96
ATOM	3700	C	PRO	B	180	32.130	30.439	80.793	1.000	43.82
ATOM	3701	O	PRO	B	180	32.877	29.834	81.569	1.000	44.36
ATOM	3702	N	GLU	B	181	32.144	30.139	79.492	1.000	42.02
ATOM	3703	CA	GLU	B	181	33.041	29.044	79.095	1.000	41.65
ATOM	3704	CB	GLU	B	181	32.305	28.017	78.245	1.000	42.17
ATOM	3705	CG	GLU	B	181	31.191	27.274	78.964	1.000	46.96
ATOM	3706	CD	GLU	B	181	30.000	27.055	78.047	1.000	47.94
ATOM	3707	OE1	GLU	B	181	29.114	27.932	78.017	1.000	66.99
ATOM	3708	OE2	GLU	B	181	29.958	26.017	77.358	1.000	66.16
ATOM	3709	C	GLU	B	181	34.270	29.552	78.353	1.000	42.89
ATOM	3710	O	GLU	B	181	35.211	28.790	78.114	1.000	45.33
ATOM	3711	N	TRP	B	182	34.287	30.831	77.987	1.000	38.96
ATOM	3712	CA	TRP	B	182	35.473	31.378	77.343	1.000	34.57
ATOM	3713	CB	TRP	B	182	35.493	31.021	75.853	1.000	34.24
ATOM	3714	CG	TRP	B	182	34.289	31.453	75.078	1.000	31.49
ATOM	3715	CD1	TRP	B	182	34.055	32.679	74.531	1.000	33.21
ATOM	3716	NE1	TRP	B	182	32.839	32.683	73.891	1.000	30.07
ATOM	3717	CE2	TRP	B	182	32.258	31.451	74.014	1.000	24.47
ATOM	3718	CD2	TRP	B	182	33.145	30.644	74.755	1.000	36.54
ATOM	3719	CE3	TRP	B	182	32.793	29.317	75.030	1.000	38.44
ATOM	3720	CZ3	TRP	B	182	31.582	28.837	74.562	1.000	36.86
ATOM	3721	CH2	TRP	B	182	30.725	29.670	73.827	1.000	32.83
ATOM	3722	CZ2	TRP	B	182	31.038	30.971	73.543	1.000	25.32
ATOM	3723	C	TRP	B	182	35.581	32.890	77.481	1.000	29.73
ATOM	3724	O	TRP	B	182	34.637	33.609	77.802	1.000	34.04
ATOM	3725	N	THR	B	183	36.786	33.370	77.203	1.000	19.61
ATOM	3726	CA	THR	B	183	37.043	34.808	77.245	1.000	24.25
ATOM	3727	CB	THR	B	183	38.106	35.096	78.329	1.000	27.46
ATOM	3728	OG1	THR	B	183	37.562	34.709	79.589	1.000	35.93
ATOM	3729	CG2	THR	B	183	38.446	36.570	78.408	1.000	27.17
ATOM	3730	C	THR	B	183	37.539	35.333	75.910	1.000	20.91
ATOM	3731	O	THR	B	183	38.454	34.749	75.312	1.000	28.00
ATOM	3732	N	ILE	B	184	36.966	36.423	75.422	1.000	26.34
ATOM	3733	CA	ILE	B	184	37.472	37.068	74.208	1.000	26.11
ATOM	3734	CB	ILE	B	184	36.341	37.420	73.235	1.000	29.02
ATOM	3735	CG1	ILE	B	184	35.592	36.198	72.681	1.000	36.60
ATOM	3736	CD1	ILE	B	184	34.154	36.545	72.341	1.000	36.57
ATOM	3737	CG2	ILE	B	184	36.819	38.293	72.087	1.000	18.36
ATOM	3738	C	ILE	B	184	38.232	38.333	74.580	1.000	31.53
ATOM	3739	O	ILE	B	184	37.781	39.186	75.345	1.000	38.29
ATOM	3740	N	ARG	B	185	39.437	38.501	74.043	1.000	34.57
ATOM	3741	CA	ARG	B	185	40.147	39.754	74.292	1.000	25.10
ATOM	3742	CB	ARG	B	185	41.417	39.538	75.100	1.000	28.99
ATOM	3743	CG	ARG	B	185	41.209	39.034	76.522	1.000	31.53

**FIGURE 78**

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ATOM	3744	CD	ARG	B	185	42.403	38.222	76.976	1.000	25.65
ATOM	3745	NE	ARG	B	185	42.343	37.791	78.364	1.000	21.83
ATOM	3746	CZ	ARG	B	185	42.092	36.551	78.753	1.000	23.41
ATOM	3747	NH1	ARG	B	185	41.864	35.591	77.867	1.000	20.48
ATOM	3748	NH2	ARG	B	185	42.064	36.264	80.047	1.000	23.08
ATOM	3749	C	ARG	B	185	40.474	40.399	72.952	1.000	34.69
ATOM	3750	O	ARG	B	185	40.557	39.744	71.909	1.000	35.97
ATOM	3751	N	GLU	B	186	40.657	41.714	72.993	1.000	27.86
ATOM	3752	CA	GLU	B	186	41.104	42.376	71.771	1.000	30.56
ATOM	3753	CB	GLU	B	186	40.003	43.261	71.200	1.000	27.97
ATOM	3754	CG	GLU	B	186	38.651	42.555	71.232	1.000	39.02
ATOM	3755	CD	GLU	B	186	37.530	43.456	70.746	1.000	52.48
ATOM	3756	OE1	GLU	B	186	37.819	44.357	69.928	1.000	68.25
ATOM	3757	OE2	GLU	B	186	36.378	43.243	71.180	1.000	77.37
ATOM	3758	C	GLU	B	186	42.373	43.152	72.110	1.000	32.85
ATOM	3759	O	GLU	B	186	42.405	43.798	73.154	1.000	31.08
ATOM	3760	N	PHE	B	187	43.349	43.031	71.236	1.000	30.67
ATOM	3761	CA	PHE	B	187	44.651	43.643	71.332	1.000	28.22
ATOM	3762	CB	PHE	B	187	45.761	42.599	71.472	1.000	23.26
ATOM	3763	CG	PHE	B	187	45.580	41.563	72.546	1.000	30.99
ATOM	3764	CD1	PHE	B	187	45.238	40.260	72.244	1.000	27.35
ATOM	3765	CE1	PHE	B	187	45.074	39.304	73.230	1.000	20.96
ATOM	3766	CZ	PHE	B	187	45.244	39.654	74.558	1.000	27.74
ATOM	3767	CE2	PHE	B	187	45.589	40.951	74.882	1.000	33.31
ATOM	3768	CD2	PHE	B	187	45.760	41.891	73.884	1.000	33.33
ATOM	3769	C	PHE	B	187	44.937	44.474	70.079	1.000	32.36
ATOM	3770	O	PHE	B	187	44.466	44.149	68.989	1.000	24.82
ATOM	3771	N	LYS	B	188	45.731	45.502	70.304	1.000	33.51
ATOM	3772	CA	LYS	B	188	46.366	46.294	69.265	1.000	39.34
ATOM	3773	CB	LYS	B	188	46.107	47.786	69.445	1.000	52.27
ATOM	3774	CG	LYS	B	188	47.360	48.631	69.623	1.000	65.67
ATOM	3775	CD	LYS	B	188	47.208	49.980	68.916	1.000	71.88
ATOM	3776	CE	LYS	B	188	48.299	50.947	69.345	1.000	76.68
ATOM	3777	NZ	LYS	B	188	48.492	52.055	68.375	1.000	77.91
ATOM	3778	C	LYS	B	188	47.867	46.005	69.285	1.000	31.64
ATOM	3779	O	LYS	B	188	48.496	46.016	70.345	1.000	31.25
ATOM	3780	N	ILE	B	189	48.432	45.740	68.110	1.000	25.97
ATOM	3781	CA	ILE	B	189	49.869	45.521	68.045	1.000	32.80
ATOM	3782	CB	ILE	B	189	50.247	44.098	67.612	1.000	38.71
ATOM	3783	CG1	ILE	B	189	49.093	43.327	66.974	1.000	46.51
ATOM	3784	CD1	ILE	B	189	48.715	43.822	65.594	1.000	39.76
ATOM	3785	CG2	ILE	B	189	50.838	43.337	68.787	1.000	53.93
ATOM	3786	C	ILE	B	189	50.485	46.515	67.066	1.000	33.72
ATOM	3787	O	ILE	B	189	49.888	46.777	66.022	1.000	37.58
ATOM	3788	N	CYS	B	190	51.648	47.022	67.450	1.000	30.23
ATOM	3789	CA	CYS	B	190	52.400	47.934	66.602	1.000	40.89
ATOM	3790	CB	CYS	B	190	52.596	49.307	67.233	1.000	42.64
ATOM	3791	SG	CYS	B	190	51.150	50.118	67.926	1.000	58.03
ATOM	3792	C	CYS	B	190	53.775	47.334	66.282	1.000	44.57
ATOM	3793	O	CYS	B	190	54.446	46.804	67.173	1.000	40.52
ATOM	3794	N	GLY	B	191	54.140	47.444	65.011	1.000	36.59
ATOM	3795	CA	GLY	B	191	55.407	46.950	64.504	1.000	43.85

**FIGURE 79**

ATOM	3796	C	GLY	B	191	56.063	48.026	63.654	1.000	51.14
ATOM	3797	O	GLY	B	191	55.515	49.122	63.561	1.000	44.72
ATOM	3798	N	GLU	B	192	57.206	47.732	63.051	1.000	65.39
ATOM	3799	CA	GLU	B	192	57.917	48.729	62.251	1.000	74.92
ATOM	3800	CB	GLU	B	192	59.164	48.118	61.620	1.000	80.08
ATOM	3801	CG	GLU	B	192	59.486	46.705	62.068	1.000	89.69
ATOM	3802	CD	GLU	B	192	60.187	46.619	63.406	1.000	99.45
ATOM	3803	OE1	GLU	B	192	59.909	45.653	64.155	1.000	109.46
ATOM	3804	OE2	GLU	B	192	61.017	47.500	63.734	1.000	105.75
ATOM	3805	C	GLU	B	192	56.982	49.325	61.190	1.000	77.53
ATOM	3806	O	GLU	B	192	57.093	50.520	60.921	1.000	71.90
ATOM	3807	N	GLU	B	193	56.119	48.468	60.689	1.000	80.23
ATOM	3808	CA	GLU	B	193	55.037	48.642	59.748	1.000	85.66
ATOM	3809	CB	GLU	B	193	54.717	50.116	59.508	1.000	94.37
ATOM	3810	CG	GLU	B	193	53.928	50.436	58.253	1.000	106.40
ATOM	3811	CD	GLU	B	193	52.595	49.734	58.174	1.000	115.65
ATOM	3812	OE1	GLU	B	193	51.537	50.403	58.158	1.000	130.32
ATOM	3813	OE2	GLU	B	193	52.613	48.478	58.138	1.000	120.48
ATOM	3814	C	GLU	B	193	55.364	47.949	58.424	1.000	90.24
ATOM	3815	O	GLU	B	193	56.248	48.389	57.684	1.000	99.18
ATOM	3816	N	GLN	B	194	54.652	46.858	58.146	1.000	94.55
ATOM	3817	CA	GLN	B	194	54.801	46.130	56.892	1.000	99.07
ATOM	3818	CB	GLN	B	194	55.799	44.984	57.030	1.000	99.47
ATOM	3819	CG	GLN	B	194	56.655	45.014	58.284	1.000	99.46
ATOM	3820	CD	GLN	B	194	58.097	44.616	58.010	1.000	96.93
ATOM	3821	OE1	GLN	B	194	58.678	44.953	56.977	1.000	92.58
ATOM	3822	NE2	GLN	B	194	58.682	43.863	58.944	1.000	90.47
ATOM	3823	C	GLN	B	194	53.449	45.595	56.413	1.000	102.41
ATOM	3824	O	GLN	B	194	53.158	44.410	56.574	1.000	106.43
ATOM	3825	N	LEU	B	195	52.649	46.481	55.833	1.000	102.43
ATOM	3826	CA	LEU	B	195	51.322	46.214	55.301	1.000	100.78
ATOM	3827	CB	LEU	B	195	51.291	44.888	54.539	1.000	96.19
ATOM	3828	CG	LEU	B	195	51.096	44.962	53.021	1.000	88.64
ATOM	3829	CD1	LEU	B	195	51.473	46.333	52.484	1.000	68.61
ATOM	3830	CD2	LEU	B	195	51.917	43.868	52.320	1.000	77.73
ATOM	3831	C	LEU	B	195	50.270	46.236	56.412	1.000	101.84
ATOM	3832	O	LEU	B	195	49.132	45.812	56.210	1.000	107.43
ATOM	3833	N	ASP	B	196	50.667	46.740	57.570	1.000	100.14
ATOM	3834	CA	ASP	B	196	49.834	46.918	58.754	1.000	95.50
ATOM	3835	CB	ASP	B	196	49.258	45.605	59.253	1.000	93.87
ATOM	3836	CG	ASP	B	196	50.159	44.699	60.049	1.000	86.73
ATOM	3837	OD1	ASP	B	196	51.251	44.300	59.589	1.000	56.18
ATOM	3838	OD2	ASP	B	196	49.770	44.325	61.183	1.000	68.86
ATOM	3839	C	ASP	B	196	50.665	47.613	59.833	1.000	91.65
ATOM	3840	O	ASP	B	196	51.757	47.144	60.157	1.000	97.39
ATOM	3841	N	ALA	B	197	50.175	48.732	60.358	1.000	87.23
ATOM	3842	CA	ALA	B	197	50.971	49.522	61.291	1.000	84.73
ATOM	3843	CB	ALA	B	197	51.043	50.971	60.832	1.000	82.95
ATOM	3844	C	ALA	B	197	50.426	49.456	62.716	1.000	82.50
ATOM	3845	O	ALA	B	197	51.192	49.650	63.662	1.000	66.61
ATOM	3846	N	HIS	B	198	49.132	49.213	62.833	1.000	82.67
ATOM	3847	CA	HIS	B	198	48.373	49.029	64.057	1.000	77.93

**FIGURE 80**

ATOM	3848	CB	HIS	B	198	47.927	50.338	64.697	1.000	77.67
ATOM	3849	CG	HIS	B	198	48.200	51.573	63.899	1.000	84.79
ATOM	3850	ND1	HIS	B	198	47.669	51.785	62.645	1.000	86.88
ATOM	3851	CE1	HIS	B	198	48.085	52.952	62.182	1.000	88.81
ATOM	3852	NE2	HIS	B	198	48.869	53.503	63.089	1.000	87.71
ATOM	3853	CD2	HIS	B	198	48.959	52.659	64.170	1.000	85.49
ATOM	3854	C	HIS	B	198	47.141	48.164	63.752	1.000	75.55
ATOM	3855	O	HIS	B	198	46.055	48.678	63.493	1.000	83.33
ATOM	3856	N	ARG	B	199	47.365	46.860	63.783	1.000	63.26
ATOM	3857	CA	ARG	B	199	46.380	45.839	63.475	1.000	55.42
ATOM	3858	CB	ARG	B	199	47.074	44.642	62.808	1.000	56.72
ATOM	3859	CG	ARG	B	199	46.181	43.423	62.663	1.000	47.99
ATOM	3860	CD	ARG	B	199	46.961	42.174	62.308	1.000	37.39
ATOM	3861	NE	ARG	B	199	48.216	42.423	61.614	1.000	35.84
ATOM	3862	CZ	ARG	B	199	49.253	41.591	61.677	1.000	43.79
ATOM	3863	NH1	ARG	B	199	49.171	40.475	62.398	1.000	20.33
ATOM	3864	NH2	ARG	B	199	50.368	41.875	61.018	1.000	25.11
ATOM	3865	C	ARG	B	199	45.629	45.376	64.717	1.000	43.83
ATOM	3866	O	ARG	B	199	46.181	45.353	65.817	1.000	40.98
ATOM	3867	N	LEU	B	200	44.361	45.010	64.551	1.000	35.65
ATOM	3868	CA	LEU	B	200	43.571	44.511	65.672	1.000	34.82
ATOM	3869	CB	LEU	B	200	42.096	44.866	65.560	1.000	37.89
ATOM	3870	CG	LEU	B	200	41.296	45.146	66.831	1.000	47.74
ATOM	3871	CD1	LEU	B	200	41.329	43.974	67.800	1.000	44.43
ATOM	3872	CD2	LEU	B	200	41.794	46.411	67.514	1.000	55.08
ATOM	3873	C	LEU	B	200	43.707	42.991	65.738	1.000	36.55
ATOM	3874	O	LEU	B	200	43.563	42.331	64.706	1.000	39.15
ATOM	3875	N	ILE	B	201	43.977	42.484	66.938	1.000	29.95
ATOM	3876	CA	ILE	B	201	44.033	41.033	67.101	1.000	25.47
ATOM	3877	CB	ILE	B	201	45.314	40.531	67.770	1.000	25.78
ATOM	3878	CG1	ILE	B	201	46.630	40.929	67.102	1.000	24.11
ATOM	3879	CD1	ILE	B	201	46.743	40.486	65.660	1.000	22.88
ATOM	3880	CG2	ILE	B	201	45.271	39.009	67.912	1.000	28.86
ATOM	3881	C	ILE	B	201	42.824	40.609	67.935	1.000	25.30
ATOM	3882	O	ILE	B	201	42.468	41.326	68.864	1.000	36.64
ATOM	3883	N	ARG	B	202	42.229	39.478	67.597	1.000	29.04
ATOM	3884	CA	ARG	B	202	41.111	38.919	68.353	1.000	28.15
ATOM	3885	CB	ARG	B	202	39.928	38.698	67.421	1.000	32.44
ATOM	3886	CG	ARG	B	202	38.587	39.177	67.941	1.000	38.49
ATOM	3887	CD	ARG	B	202	38.061	40.347	67.121	1.000	51.50
ATOM	3888	NE	ARG	B	202	36.996	41.057	67.815	1.000	62.80
ATOM	3889	CZ	ARG	B	202	36.709	42.345	67.754	1.000	72.90
ATOM	3890	NH1	ARG	B	202	37.410	43.184	67.004	1.000	64.58
ATOM	3891	NH2	ARG	B	202	35.690	42.818	68.467	1.000	95.35
ATOM	3892	C	ARG	B	202	41.552	37.621	69.013	1.000	24.66
ATOM	3893	O	ARG	B	202	41.976	36.706	68.299	1.000	31.26
ATOM	3894	N	HIS	B	203	41.479	37.532	70.330	1.000	19.54
ATOM	3895	CA	HIS	B	203	41.943	36.336	71.046	1.000	27.13
ATOM	3896	CB	HIS	B	203	43.011	36.754	72.047	1.000	23.50
ATOM	3897	CG	HIS	B	203	43.762	35.711	72.798	1.000	26.59
ATOM	3898	ND1	HIS	B	203	43.264	35.062	73.902	1.000	33.06
ATOM	3899	CE1	HIS	B	203	44.154	34.200	74.365	1.000	29.95

**FIGURE 81**

ATOM	3900	NE2	HIS	B	203	45.231	34.264	73.603	1.000	28.32
ATOM	3901	CD2	HIS	B	203	45.012	35.203	72.620	1.000	29.08
ATOM	3902	C	HIS	B	203	40.790	35.608	71.729	1.000	29.92
ATOM	3903	O	HIS	B	203	40.060	36.152	72.557	1.000	25.16
ATOM	3904	N	PHE	B	204	40.599	34.337	71.385	1.000	23.26
ATOM	3905	CA	PHE	B	204	39.474	33.561	71.878	1.000	17.30
ATOM	3906	CB	PHE	B	204	38.735	32.923	70.702	1.000	21.59
ATOM	3907	CG	PHE	B	204	38.310	33.929	69.657	1.000	29.41
ATOM	3908	CD1	PHE	B	204	39.097	34.183	68.548	1.000	28.21
ATOM	3909	CE1	PHE	B	204	38.720	35.091	67.585	1.000	29.05
ATOM	3910	CZ	PHE	B	204	37.537	35.792	67.732	1.000	29.20
ATOM	3911	CE2	PHE	B	204	36.737	35.544	68.829	1.000	29.69
ATOM	3912	CD2	PHE	B	204	37.114	34.616	69.779	1.000	29.48
ATOM	3913	C	PHE	B	204	39.947	32.481	72.844	1.000	28.09
ATOM	3914	O	PHE	B	204	40.557	31.502	72.406	1.000	31.26
ATOM	3915	N	HIS	B	205	39.676	32.681	74.133	1.000	18.80
ATOM	3916	CA	HIS	B	205	40.188	31.784	75.156	1.000	21.65
ATOM	3917	CB	HIS	B	205	40.883	32.621	76.249	1.000	23.81
ATOM	3918	CG	HIS	B	205	41.692	31.816	77.216	1.000	24.84
ATOM	3919	ND1	HIS	B	205	42.280	32.371	78.328	1.000	29.84
ATOM	3920	CE1	HIS	B	205	42.931	31.440	78.997	1.000	32.02
ATOM	3921	NE2	HIS	B	205	42.793	30.285	78.364	1.000	25.82
ATOM	3922	CD2	HIS	B	205	42.029	30.502	77.251	1.000	28.58
ATOM	3923	C	HIS	B	205	39.114	30.895	75.778	1.000	28.42
ATOM	3924	O	HIS	B	205	38.277	31.351	76.564	1.000	24.92
ATOM	3925	N	TYR	B	206	39.190	29.613	75.438	1.000	26.78
ATOM	3926	CA	TYR	B	206	38.347	28.572	76.005	1.000	25.27
ATOM	3927	CB	TYR	B	206	38.308	27.361	75.091	1.000	25.32
ATOM	3928	CG	TYR	B	206	37.302	26.289	75.429	1.000	21.60
ATOM	3929	CD1	TYR	B	206	35.946	26.502	75.229	1.000	21.30
ATOM	3930	CE1	TYR	B	206	35.027	25.519	75.537	1.000	22.97
ATOM	3931	CZ	TYR	B	206	35.457	24.313	76.039	1.000	26.67
ATOM	3932	OH	TYR	B	206	34.536	23.336	76.341	1.000	53.16
ATOM	3933	CE2	TYR	B	206	36.799	24.073	76.248	1.000	25.66
ATOM	3934	CD2	TYR	B	206	37.708	25.067	75.939	1.000	23.88
ATOM	3935	C	TYR	B	206	38.850	28.115	77.369	1.000	23.63
ATOM	3936	O	TYR	B	206	39.927	27.531	77.442	1.000	22.75
ATOM	3937	N	THR	B	207	38.078	28.362	78.419	1.000	28.47
ATOM	3938	CA	THR	B	207	38.594	28.239	79.781	1.000	34.58
ATOM	3939	CB	THR	B	207	38.251	29.523	80.579	1.000	29.68
ATOM	3940	OG1	THR	B	207	36.868	29.844	80.409	1.000	32.12
ATOM	3941	CG2	THR	B	207	39.025	30.717	80.039	1.000	27.42
ATOM	3942	C	THR	B	207	38.079	27.031	80.540	1.000	38.19
ATOM	3943	O	THR	B	207	38.351	26.891	81.740	1.000	46.50
ATOM	3944	N	VAL	B	208	37.333	26.118	79.912	1.000	36.23
ATOM	3945	CA	VAL	B	208	36.752	25.066	80.760	1.000	32.80
ATOM	3946	CB	VAL	B	208	35.226	25.275	80.831	1.000	28.19
ATOM	3947	CG1	VAL	B	208	34.942	26.537	81.638	1.000	27.38
ATOM	3948	CG2	VAL	B	208	34.601	25.387	79.454	1.000	32.82
ATOM	3949	C	VAL	B	208	37.089	23.660	80.314	1.000	39.69
ATOM	3950	O	VAL	B	208	36.491	22.707	80.825	1.000	41.93
ATOM	3951	N	TRP	B	209	38.039	23.467	79.397	1.000	40.70

FIGURE 82

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Three Dimensional Coordinates of HPTPbeta

ATOM	3952	CA	TRP	B	209	38.445	22.102	79.049	1.000	36.47
ATOM	3953	CB	TRP	B	209	39.577	22.083	78.032	1.000	31.02
ATOM	3954	CG	TRP	B	209	39.652	20.846	77.194	1.000	28.16
ATOM	3955	CD1	TRP	B	209	39.949	19.583	77.597	1.000	27.98
ATOM	3956	NE1	TRP	B	209	39.921	18.716	76.527	1.000	33.60
ATOM	3957	CE2	TRP	B	209	39.600	19.427	75.396	1.000	27.75
ATOM	3958	CD2	TRP	B	209	39.426	20.768	75.775	1.000	24.17
ATOM	3959	CE3	TRP	B	209	39.092	21.719	74.805	1.000	28.32
ATOM	3960	CZ3	TRP	B	209	38.941	21.300	73.496	1.000	34.71
ATOM	3961	CH2	TRP	B	209	39.121	19.954	73.151	1.000	31.19
ATOM	3962	CZ2	TRP	B	209	39.450	18.999	74.078	1.000	21.94
ATOM	3963	C	TRP	B	209	38.888	21.358	80.309	1.000	39.28
ATOM	3964	O	TRP	B	209	39.737	21.872	81.039	1.000	33.04
ATOM	3965	N	PRO	B	210	38.325	20.185	80.563	1.000	38.49
ATOM	3966	CA	PRO	B	210	38.574	19.480	81.825	1.000	33.55
ATOM	3967	CB	PRO	B	210	37.657	18.251	81.742	1.000	33.67
ATOM	3968	CG	PRO	B	210	36.654	18.591	80.688	1.000	33.65
ATOM	3969	CD	PRO	B	210	37.408	19.429	79.689	1.000	31.99
ATOM	3970	C	PRO	B	210	40.020	19.024	81.943	1.000	39.20
ATOM	3971	O	PRO	B	210	40.737	18.955	80.943	1.000	45.02
ATOM	3972	N	ASP	B	211	40.425	18.710	83.167	1.000	42.94
ATOM	3973	CA	ASP	B	211	41.772	18.214	83.426	1.000	48.87
ATOM	3974	CB	ASP	B	211	42.010	18.080	84.934	1.000	57.39
ATOM	3975	CG	ASP	B	211	42.375	19.402	85.586	1.000	66.45
ATOM	3976	OD1	ASP	B	211	42.136	20.463	84.966	1.000	52.25
ATOM	3977	OD2	ASP	B	211	42.903	19.369	86.721	1.000	87.29
ATOM	3978	C	ASP	B	211	42.020	16.872	82.747	1.000	39.83
ATOM	3979	O	ASP	B	211	43.122	16.559	82.300	1.000	47.17
ATOM	3980	N	HIS	B	212	40.987	16.044	82.672	1.000	40.86
ATOM	3981	CA	HIS	B	212	41.117	14.730	82.050	1.000	47.36
ATOM	3982	CB	HIS	B	212	41.076	13.599	83.066	1.000	59.57
ATOM	3983	CG	HIS	B	212	42.146	13.536	84.102	1.000	71.70
ATOM	3984	ND1	HIS	B	212	42.060	14.183	85.313	1.000	74.03
ATOM	3985	CE1	HIS	B	212	43.144	13.953	86.032	1.000	77.44
ATOM	3986	NE2	HIS	B	212	43.938	13.155	85.336	1.000	79.18
ATOM	3987	CD2	HIS	B	212	43.332	12.879	84.131	1.000	78.65
ATOM	3988	C	HIS	B	212	39.976	14.556	81.049	1.000	44.25
ATOM	3989	O	HIS	B	212	38.865	14.996	81.354	1.000	50.41
ATOM	3990	N	GLY	B	213	40.237	13.936	79.906	1.000	43.28
ATOM	3991	CA	GLY	B	213	39.210	13.707	78.905	1.000	34.05
ATOM	3992	C	GLY	B	213	38.716	14.968	78.223	1.000	36.21
ATOM	3993	O	GLY	B	213	39.361	16.015	78.258	1.000	46.36
ATOM	3994	N	VAL	B	214	37.550	14.875	77.595	1.000	38.56
ATOM	3995	CA	VAL	B	214	36.931	15.933	76.818	1.000	39.41
ATOM	3996	CB	VAL	B	214	36.356	15.345	75.510	1.000	40.18
ATOM	3997	CG1	VAL	B	214	37.467	14.671	74.725	1.000	35.68
ATOM	3998	CG2	VAL	B	214	35.226	14.382	75.831	1.000	48.90
ATOM	3999	C	VAL	B	214	35.809	16.620	77.575	1.000	43.12
ATOM	4000	O	VAL	B	214	35.366	16.105	78.602	1.000	64.15
ATOM	4001	N	PRO	B	215	35.344	17.763	77.089	1.000	42.93
ATOM	4002	CA	PRO	B	215	34.151	18.378	77.679	1.000	40.14
ATOM	4003	CB	PRO	B	215	33.784	19.448	76.653	1.000	42.40

**FIGURE 83**

ATOM	4004	CG	PRO B 215	35.090	19.835	76.040	1.000	41.27
ATOM	4005	CD	PRO B 215	35.888	18.567	75.982	1.000	37.96
ATOM	4006	C	PRO B 215	33.008	17.374	77.800	1.000	45.59
ATOM	4007	O	PRO B 215	32.766	16.617	76.859	1.000	40.94
ATOM	4008	N	GLU B 216	32.333	17.381	78.942	1.000	50.95
ATOM	4009	CA	GLU B 216	31.204	16.498	79.215	1.000	53.03
ATOM	4010	CB	GLU B 216	30.693	16.699	80.643	1.000	59.73
ATOM	4011	CG	GLU B 216	29.489	15.856	81.030	1.000	65.18
ATOM	4012	CD	GLU B 216	28.745	16.402	82.236	1.000	71.96
ATOM	4013	OE1	GLU B 216	29.388	16.616	83.292	1.000	79.59
ATOM	4014	OE2	GLU B 216	27.515	16.622	82.138	1.000	56.48
ATOM	4015	C	GLU B 216	30.083	16.748	78.217	1.000	50.99
ATOM	4016	O	GLU B 216	29.274	15.873	77.907	1.000	49.11
ATOM	4017	N	THR B 217	30.038	17.981	77.699	1.000	46.20
ATOM	4018	CA	THR B 217	29.017	18.266	76.693	1.000	46.03
ATOM	4019	CB	THR B 217	28.092	19.430	77.079	1.000	38.73
ATOM	4020	OG1	THR B 217	26.778	19.154	76.564	1.000	61.70
ATOM	4021	CG2	THR B 217	28.539	20.738	76.440	1.000	30.35
ATOM	4022	C	THR B 217	29.666	18.582	75.347	1.000	49.34
ATOM	4023	O	THR B 217	30.797	19.060	75.290	1.000	48.39
ATOM	4024	N	THR B 218	28.918	18.307	74.287	1.000	45.15
ATOM	4025	CA	THR B 218	29.328	18.657	72.938	1.000	38.83
ATOM	4026	CB	THR B 218	28.599	17.780	71.908	1.000	40.05
ATOM	4027	OG1	THR B 218	27.195	18.052	72.006	1.000	47.92
ATOM	4028	CG2	THR B 218	28.789	16.302	72.204	1.000	37.44
ATOM	4029	C	THR B 218	29.025	20.122	72.648	1.000	40.85
ATOM	4030	O	THR B 218	29.781	20.830	71.985	1.000	49.43
ATOM	4031	N	GLN B 219	27.886	20.590	73.149	1.000	39.19
ATOM	4032	CA	GLN B 219	27.423	21.943	72.863	1.000	40.36
ATOM	4033	CB	GLN B 219	26.112	22.238	73.599	1.000	47.97
ATOM	4034	CG	GLN B 219	25.063	22.954	72.773	1.000	57.22
ATOM	4035	CD	GLN B 219	24.636	24.294	73.334	1.000	65.42
ATOM	4036	OE1	GLN B 219	24.948	24.653	74.471	1.000	76.84
ATOM	4037	NE2	GLN B 219	23.901	25.061	72.531	1.000	73.40
ATOM	4038	C	GLN B 219	28.486	22.976	73.229	1.000	40.36
ATOM	4039	O	GLN B 219	28.610	23.987	72.535	1.000	40.22
ATOM	4040	N	SER B 220	29.229	22.716	74.293	1.000	38.53
ATOM	4041	CA	SER B 220	30.296	23.588	74.774	1.000	40.28
ATOM	4042	CB	SER B 220	31.039	22.897	75.927	1.000	36.16
ATOM	4043	OG	SER B 220	31.787	23.830	76.681	1.000	43.68
ATOM	4044	C	SER B 220	31.282	23.969	73.678	1.000	39.40
ATOM	4045	O	SER B 220	31.451	25.138	73.322	1.000	40.25
ATOM	4046	N	LEU B 221	31.977	22.990	73.102	1.000	42.59
ATOM	4047	CA	LEU B 221	32.991	23.314	72.093	1.000	37.94
ATOM	4048	CB	LEU B 221	33.912	22.118	71.864	1.000	36.81
ATOM	4049	CG	LEU B 221	35.282	22.419	71.247	1.000	44.42
ATOM	4050	CD1	LEU B 221	36.044	23.445	72.073	1.000	31.31
ATOM	4051	CD2	LEU B 221	36.111	21.152	71.101	1.000	39.34
ATOM	4052	C	LEU B 221	32.323	23.778	70.805	1.000	37.27
ATOM	4053	O	LEU B 221	32.776	24.708	70.136	1.000	50.72
ATOM	4054	N	ILE B 222	31.217	23.135	70.456	1.000	35.78
ATOM	4055	CA	ILE B 222	30.451	23.526	69.277	1.000	40.80

**FIGURE 84**



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ATOM	4056	CB	ILE	B	222	29.169	22.678	69.172	1.000	36.72
ATOM	4057	CG1	ILE	B	222	29.431	21.240	68.707	1.000	28.35
ATOM	4058	CD1	ILE	B	222	28.159	20.425	68.645	1.000	27.69
ATOM	4059	CG2	ILE	B	222	28.131	23.351	68.293	1.000	33.22
ATOM	4060	C	ILE	B	222	30.103	25.005	69.293	1.000	36.01
ATOM	4061	O	ILE	B	222	30.270	25.723	68.300	1.000	32.03
ATOM	4062	N	GLN	B	223	29.607	25.516	70.425	1.000	29.32
ATOM	4063	CA	GLN	B	223	29.310	26.951	70.415	1.000	35.50
ATOM	4064	CB	GLN	B	223	28.535	27.378	71.662	1.000	46.37
ATOM	4065	CG	GLN	B	223	27.155	27.943	71.365	1.000	60.65
ATOM	4066	CD	GLN	B	223	26.869	29.302	71.968	1.000	64.54
ATOM	4067	OE1	GLN	B	223	27.164	30.353	71.390	1.000	52.88
ATOM	4068	NE2	GLN	B	223	26.268	29.309	73.157	1.000	64.34
ATOM	4069	C	GLN	B	223	30.601	27.759	70.275	1.000	32.82
ATOM	4070	O	GLN	B	223	30.633	28.704	69.482	1.000	40.85
ATOM	4071	N	PHE	B	224	31.643	27.396	71.019	1.000	25.74
ATOM	4072	CA	PHE	B	224	32.907	28.131	70.963	1.000	27.71
ATOM	4073	CB	PHE	B	224	33.949	27.479	71.869	1.000	24.79
ATOM	4074	CG	PHE	B	224	35.314	28.117	71.858	1.000	25.53
ATOM	4075	CD1	PHE	B	224	35.532	29.343	72.466	1.000	23.05
ATOM	4076	CE1	PHE	B	224	36.785	29.925	72.476	1.000	27.91
ATOM	4077	CZ	PHE	B	224	37.861	29.306	71.869	1.000	21.81
ATOM	4078	CE2	PHE	B	224	37.654	28.086	71.253	1.000	21.78
ATOM	4079	CD2	PHE	B	224	36.400	27.506	71.255	1.000	21.56
ATOM	4080	C	PHE	B	224	33.441	28.175	69.535	1.000	25.15
ATOM	4081	O	PHE	B	224	33.832	29.206	68.999	1.000	25.80
ATOM	4082	N	VAL	B	225	33.454	27.006	68.903	1.000	26.67
ATOM	4083	CA	VAL	B	225	33.933	26.919	67.532	1.000	29.86
ATOM	4084	CB	VAL	B	225	33.999	25.467	67.029	1.000	20.12
ATOM	4085	CG1	VAL	B	225	34.080	25.457	65.499	1.000	25.23
ATOM	4086	CG2	VAL	B	225	35.171	24.740	67.654	1.000	26.39
ATOM	4087	C	VAL	B	225	33.042	27.709	66.581	1.000	34.74
ATOM	4088	O	VAL	B	225	33.545	28.329	65.644	1.000	35.87
ATOM	4089	N	ARG	B	226	31.732	27.673	66.823	1.000	30.68
ATOM	4090	CA	ARG	B	226	30.851	28.464	65.957	1.000	28.68
ATOM	4091	CB	ARG	B	226	29.398	28.070	66.220	1.000	35.23
ATOM	4092	CG	ARG	B	226	29.089	26.678	65.666	1.000	37.49
ATOM	4093	CD	ARG	B	226	27.609	26.495	65.389	1.000	45.19
ATOM	4094	NE	ARG	B	226	27.284	25.237	64.718	1.000	47.88
ATOM	4095	CZ	ARG	B	226	26.232	24.481	65.025	1.000	52.72
ATOM	4096	NH1	ARG	B	226	25.394	24.845	65.994	1.000	43.21
ATOM	4097	NH2	ARG	B	226	26.003	23.348	64.369	1.000	42.49
ATOM	4098	C	ARG	B	226	31.120	29.943	66.166	1.000	34.17
ATOM	4099	O	ARG	B	226	31.166	30.741	65.228	1.000	36.74
ATOM	4100	N	THR	B	227	31.340	30.366	67.409	1.000	28.96
ATOM	4101	CA	THR	B	227	31.672	31.767	67.647	1.000	24.50
ATOM	4102	CB	THR	B	227	31.786	32.029	69.165	1.000	34.83
ATOM	4103	OG1	THR	B	227	30.553	31.661	69.790	1.000	51.39
ATOM	4104	CG2	THR	B	227	32.011	33.502	69.440	1.000	28.79
ATOM	4105	C	THR	B	227	32.980	32.179	66.987	1.000	26.81
ATOM	4106	O	THR	B	227	33.096	33.245	66.375	1.000	44.96
ATOM	4107	N	VAL	B	228	34.011	31.345	67.106	1.000	28.59

**FIGURE 85**

ATOM	4108	CA	VAL	B	228	35.306	31.681	66.512	1.000	31.86
ATOM	4109	CB	VAL	B	228	36.413	30.705	66.949	1.000	36.11
ATOM	4110	CG1	VAL	B	228	37.648	30.824	66.068	1.000	29.10
ATOM	4111	CG2	VAL	B	228	36.821	30.927	68.408	1.000	24.69
ATOM	4112	C	VAL	B	228	35.169	31.706	64.996	1.000	31.35
ATOM	4113	O	VAL	B	228	35.760	32.543	64.321	1.000	23.32
ATOM	4114	N	ARG	B	229	34.386	30.796	64.422	1.000	32.50
ATOM	4115	CA	ARG	B	229	34.313	30.758	62.950	1.000	35.15
ATOM	4116	CB	ARG	B	229	33.635	29.463	62.517	1.000	29.29
ATOM	4117	CG	ARG	B	229	33.187	29.363	61.077	1.000	32.09
ATOM	4118	CD	ARG	B	229	34.246	29.762	60.075	1.000	36.20
ATOM	4119	NE	ARG	B	229	35.498	29.024	60.225	1.000	34.10
ATOM	4120	CZ	ARG	B	229	36.530	29.145	59.398	1.000	31.12
ATOM	4121	NH1	ARG	B	229	36.458	29.976	58.364	1.000	29.99
ATOM	4122	NH2	ARG	B	229	37.637	28.440	59.603	1.000	25.49
ATOM	4123	C	ARG	B	229	33.634	32.009	62.407	1.000	37.12
ATOM	4124	O	ARG	B	229	34.041	32.534	61.363	1.000	38.65
ATOM	4125	N	ASP	B	230	32.621	32.517	63.102	1.000	33.49
ATOM	4126	CA	ASP	B	230	31.983	33.770	62.716	1.000	34.08
ATOM	4127	CB	ASP	B	230	30.892	34.161	63.717	1.000	43.05
ATOM	4128	CG	ASP	B	230	29.629	33.328	63.559	1.000	58.43
ATOM	4129	OD1	ASP	B	230	29.284	32.975	62.409	1.000	90.62
ATOM	4130	OD2	ASP	B	230	28.986	33.029	64.589	1.000	59.92
ATOM	4131	C	ASP	B	230	32.996	34.899	62.621	1.000	32.94
ATOM	4132	O	ASP	B	230	32.925	35.752	61.737	1.000	48.01
ATOM	4133	N	TYR	B	231	33.967	34.941	63.537	1.000	28.38
ATOM	4134	CA	TYR	B	231	34.903	36.062	63.457	1.000	31.35
ATOM	4135	CB	TYR	B	231	35.624	36.312	64.779	1.000	33.15
ATOM	4136	CG	TYR	B	231	34.805	37.080	65.791	1.000	35.44
ATOM	4137	CD1	TYR	B	231	33.863	36.439	66.582	1.000	39.03
ATOM	4138	CE1	TYR	B	231	33.119	37.148	67.508	1.000	45.49
ATOM	4139	CZ	TYR	B	231	33.311	38.506	67.647	1.000	43.26
ATOM	4140	OH	TYR	B	231	32.572	39.217	68.563	1.000	57.83
ATOM	4141	CE2	TYR	B	231	34.240	39.164	66.874	1.000	37.85
ATOM	4142	CD2	TYR	B	231	34.981	38.448	65.951	1.000	38.89
ATOM	4143	C	TYR	B	231	35.937	35.836	62.358	1.000	32.28
ATOM	4144	O	TYR	B	231	36.404	36.825	61.794	1.000	29.21
ATOM	4145	N	ILE	B	232	36.288	34.583	62.079	1.000	29.70
ATOM	4146	CA	ILE	B	232	37.274	34.317	61.032	1.000	26.08
ATOM	4147	CB	ILE	B	232	37.731	32.855	60.956	1.000	26.12
ATOM	4148	CG1	ILE	B	232	38.610	32.387	62.123	1.000	28.07
ATOM	4149	CD1	ILE	B	232	38.492	30.888	62.342	1.000	30.24
ATOM	4150	CG2	ILE	B	232	38.435	32.591	59.628	1.000	13.37
ATOM	4151	C	ILE	B	232	36.664	34.713	59.686	1.000	24.35
ATOM	4152	O	ILE	B	232	37.327	35.289	58.829	1.000	42.38
ATOM	4153	N	ASN	B	233	35.384	34.401	59.536	1.000	24.49
ATOM	4154	CA	ASN	B	233	34.678	34.774	58.310	1.000	35.31
ATOM	4155	CB	ASN	B	233	33.288	34.125	58.331	1.000	33.92
ATOM	4156	CG	ASN	B	233	33.411	32.644	58.011	1.000	35.63
ATOM	4157	OD1	ASN	B	233	34.456	32.194	57.542	1.000	30.58
ATOM	4158	ND2	ASN	B	233	32.353	31.889	58.275	1.000	39.02
ATOM	4159	C	ASN	B	233	34.602	36.285	58.135	1.000	39.52

FIGURE 86

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ATOM	4160	O	ASN	B	233	34.526	36.785	57.012	1.000	35.15
ATOM	4161	N	ARG	B	234	34.636	37.051	59.217	1.000	38.25
ATOM	4162	CA	ARG	B	234	34.605	38.501	59.186	1.000	36.43
ATOM	4163	CB	ARG	B	234	33.826	39.055	60.391	1.000	49.91
ATOM	4164	CG	ARG	B	234	32.397	38.562	60.514	1.000	60.74
ATOM	4165	CD	ARG	B	234	31.528	39.486	61.349	1.000	58.98
ATOM	4166	NE	ARG	B	234	30.847	38.790	62.440	1.000	54.26
ATOM	4167	CZ	ARG	B	234	31.260	38.870	63.702	1.000	52.64
ATOM	4168	NH1	ARG	B	234	32.325	39.608	63.990	1.000	52.91
ATOM	4169	NH2	ARG	B	234	30.626	38.228	64.671	1.000	46.68
ATOM	4170	C	ARG	B	234	35.998	39.117	59.211	1.000	33.22
ATOM	4171	O	ARG	B	234	36.115	40.331	59.418	1.000	48.40
ATOM	4172	N	SER	B	235	37.061	38.347	59.020	1.000	28.34
ATOM	4173	CA	SER	B	235	38.421	38.885	59.043	1.000	32.54
ATOM	4174	CB	SER	B	235	39.279	38.104	60.042	1.000	34.07
ATOM	4175	OG	SER	B	235	38.666	38.004	61.314	1.000	34.54
ATOM	4176	C	SER	B	235	39.076	38.841	57.671	1.000	40.54
ATOM	4177	O	SER	B	235	40.079	38.152	57.421	1.000	36.22
ATOM	4178	N	PRO	B	236	38.561	39.592	56.707	1.000	42.54
ATOM	4179	CA	PRO	B	236	39.064	39.383	55.341	1.000	46.53
ATOM	4180	CB	PRO	B	236	38.093	40.193	54.494	1.000	50.52
ATOM	4181	CG	PRO	B	236	37.658	41.297	55.406	1.000	55.25
ATOM	4182	CD	PRO	B	236	37.577	40.675	56.775	1.000	50.10
ATOM	4183	C	PRO	B	236	40.491	39.914	55.278	1.000	45.59
ATOM	4184	O	PRO	B	236	40.815	40.861	56.008	1.000	34.18
ATOM	4185	N	GLY	B	237	41.304	39.292	54.422	1.000	33.61
ATOM	4186	CA	GLY	B	237	42.692	39.734	54.313	1.000	30.68
ATOM	4187	C	GLY	B	237	43.533	39.226	55.468	1.000	27.98
ATOM	4188	O	GLY	B	237	44.720	39.537	55.554	1.000	36.96
ATOM	4189	N	ALA	B	238	42.940	38.440	56.365	1.000	31.80
ATOM	4190	CA	ALA	B	238	43.680	37.890	57.499	1.000	29.23
ATOM	4191	CB	ALA	B	238	42.706	37.471	58.590	1.000	24.93
ATOM	4192	C	ALA	B	238	44.543	36.705	57.090	1.000	29.82
ATOM	4193	O	ALA	B	238	44.178	35.916	56.220	1.000	23.87
ATOM	4194	N	GLY	B	239	45.703	36.544	57.722	1.000	26.54
ATOM	4195	CA	GLY	B	239	46.486	35.346	57.425	1.000	26.69
ATOM	4196	C	GLY	B	239	45.930	34.157	58.191	1.000	26.81
ATOM	4197	O	GLY	B	239	44.747	34.100	58.534	1.000	29.92
ATOM	4198	N	PRO	B	240	46.775	33.188	58.496	1.000	20.79
ATOM	4199	CA	PRO	B	240	46.306	31.999	59.199	1.000	22.49
ATOM	4200	CB	PRO	B	240	47.566	31.135	59.350	1.000	22.87
ATOM	4201	CG	PRO	B	240	48.509	31.669	58.321	1.000	27.01
ATOM	4202	CD	PRO	B	240	48.223	33.140	58.223	1.000	26.31
ATOM	4203	C	PRO	B	240	45.763	32.328	60.583	1.000	25.93
ATOM	4204	O	PRO	B	240	46.235	33.194	61.314	1.000	24.16
ATOM	4205	N	THR	B	241	44.723	31.581	60.949	1.000	27.93
ATOM	4206	CA	THR	B	241	44.224	31.620	62.317	1.000	18.48
ATOM	4207	CB	THR	B	241	42.791	31.078	62.389	1.000	20.63
ATOM	4208	OG1	THR	B	241	41.906	31.922	61.633	1.000	18.88
ATOM	4209	CG2	THR	B	241	42.286	31.088	63.823	1.000	21.94
ATOM	4210	C	THR	B	241	45.177	30.793	63.182	1.000	26.66
ATOM	4211	O	THR	B	241	45.459	29.624	62.873	1.000	23.21

**FIGURE 87**

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ATOM	4212	N	VAL	B	242	45.693	31.386	64.249	1.000	26.37
ATOM	4213	CA	VAL	B	242	46.571	30.686	65.183	1.000	20.09
ATOM	4214	CB	VAL	B	242	47.476	31.650	65.969	1.000	17.77
ATOM	4215	CG1	VAL	B	242	47.993	30.997	67.245	1.000	24.64
ATOM	4216	CG2	VAL	B	242	48.652	32.105	65.118	1.000	18.35
ATOM	4217	C	VAL	B	242	45.745	29.871	66.171	1.000	21.82
ATOM	4218	O	VAL	B	242	44.763	30.387	66.707	1.000	22.41
ATOM	4219	N	VAL	B	243	46.124	28.618	66.415	1.000	24.38
ATOM	4220	CA	VAL	B	243	45.444	27.807	67.426	1.000	16.94
ATOM	4221	CB	VAL	B	243	44.512	26.759	66.797	1.000	22.95
ATOM	4222	CG1	VAL	B	243	43.664	26.072	67.863	1.000	26.25
ATOM	4223	CG2	VAL	B	243	43.612	27.396	65.744	1.000	15.21
ATOM	4224	C	VAL	B	243	46.477	27.132	68.314	1.000	19.30
ATOM	4225	O	VAL	B	243	47.444	26.568	67.807	1.000	19.80
ATOM	4226	N	HIS	B	244	46.315	27.189	69.642	1.000	17.73
ATOM	4227	CA	HIS	B	244	47.275	26.507	70.500	1.000	23.12
ATOM	4228	CB	HIS	B	244	48.487	27.365	70.842	1.000	20.11
ATOM	4229	CG	HIS	B	244	48.250	28.450	71.842	1.000	20.40
ATOM	4230	ND1	HIS	B	244	48.315	28.263	73.200	1.000	23.45
ATOM	4231	CE1	HIS	B	244	48.067	29.396	73.828	1.000	22.23
ATOM	4232	NE2	HIS	B	244	47.850	30.330	72.921	1.000	22.87
ATOM	4233	CD2	HIS	B	244	47.962	29.762	71.675	1.000	18.95
ATOM	4234	C	HIS	B	244	46.582	26.046	71.783	1.000	26.22
ATOM	4235	O	HIS	B	244	45.501	26.501	72.131	1.000	23.10
ATOM	4236	N	CYS	B	245	47.252	25.119	72.440	1.000	22.02
ATOM	4237	CA	CYS	B	245	46.907	24.642	73.777	1.000	19.58
ATOM	4238	CB	CYS	B	245	46.233	23.282	73.751	1.000	24.57
ATOM	4239	SG	CYS	B	245	47.070	21.959	72.834	1.000	28.98
ATOM	4240	C	CYS	B	245	48.229	24.655	74.539	1.000	28.34
ATOM	4241	O	CYS	B	245	48.948	25.667	74.457	1.000	29.70
ATOM	4242	N	SER	B	246	48.559	23.571	75.231	1.000	25.71
ATOM	4243	CA	SER	B	246	49.846	23.537	75.921	1.000	18.89
ATOM	4244	CB	SER	B	246	49.839	22.627	77.146	1.000	23.17
ATOM	4245	OG	SER	B	246	51.066	22.797	77.853	1.000	25.65
ATOM	4246	C	SER	B	246	50.934	23.087	74.951	1.000	24.25
ATOM	4247	O	SER	B	246	51.940	23.789	74.856	1.000	33.31
ATOM	4248	N	ALA	B	247	50.731	21.962	74.259	1.000	18.83
ATOM	4249	CA	ALA	B	247	51.743	21.518	73.314	1.000	15.18
ATOM	4250	CB	ALA	B	247	52.036	20.041	73.514	1.000	17.96
ATOM	4251	C	ALA	B	247	51.363	21.733	71.851	1.000	26.35
ATOM	4252	O	ALA	B	247	52.187	21.474	70.959	1.000	31.41
ATOM	4253	N	GLY	B	248	50.146	22.178	71.569	1.000	21.25
ATOM	4254	CA	GLY	B	248	49.642	22.228	70.206	1.000	20.49
ATOM	4255	C	GLY	B	248	49.312	20.840	69.659	1.000	30.46
ATOM	4256	O	GLY	B	248	49.670	20.541	68.517	1.000	41.55
ATOM	4257	N	VAL	B	249	48.635	19.983	70.414	1.000	28.50
ATOM	4258	CA	VAL	B	249	48.393	18.586	70.073	1.000	34.64
ATOM	4259	CB	VAL	B	249	49.048	17.670	71.137	1.000	36.74
ATOM	4260	CG1	VAL	B	249	50.523	17.496	70.828	1.000	29.63
ATOM	4261	CG2	VAL	B	249	48.858	18.238	72.545	1.000	30.44
ATOM	4262	C	VAL	B	249	46.931	18.172	69.964	1.000	33.93
ATOM	4263	O	VAL	B	249	46.301	18.395	68.930	1.000	40.05

**FIGURE 88**

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ATOM	4264	N	GLY	B	250	46.392	17.537	71.003	1.000	28.29
ATOM	4265	CA	GLY	B	250	45.069	16.957	71.039	1.000	22.14
ATOM	4266	C	GLY	B	250	43.943	17.966	70.997	1.000	24.67
ATOM	4267	O	GLY	B	250	43.137	17.979	70.063	1.000	30.05
ATOM	4268	N	ARG	B	251	43.872	18.828	72.003	1.000	16.63
ATOM	4269	CA	ARG	B	251	42.869	19.882	72.038	1.000	19.31
ATOM	4270	CB	ARG	B	251	43.124	20.810	73.240	1.000	16.91
ATOM	4271	CG	ARG	B	251	43.429	20.052	74.521	1.000	25.85
ATOM	4272	CD	ARG	B	251	43.443	21.003	75.708	1.000	27.38
ATOM	4273	NE	ARG	B	251	43.437	20.283	76.974	1.000	25.25
ATOM	4274	CZ	ARG	B	251	43.500	20.852	78.167	1.000	28.05
ATOM	4275	NH1	ARG	B	251	43.577	22.171	78.279	1.000	20.04
ATOM	4276	NH2	ARG	B	251	43.485	20.081	79.246	1.000	33.27
ATOM	4277	C	ARG	B	251	42.857	20.719	70.764	1.000	22.20
ATOM	4278	O	ARG	B	251	41.814	20.925	70.142	1.000	37.10
ATOM	4279	N	THR	B	252	44.023	21.228	70.372	1.000	25.42
ATOM	4280	CA	THR	B	252	44.120	22.091	69.200	1.000	22.56
ATOM	4281	CB	THR	B	252	45.571	22.546	68.965	1.000	23.97
ATOM	4282	OG1	THR	B	252	45.903	23.531	69.956	1.000	25.35
ATOM	4283	CG2	THR	B	252	45.734	23.196	67.600	1.000	15.93
ATOM	4284	C	THR	B	252	43.631	21.357	67.965	1.000	20.90
ATOM	4285	O	THR	B	252	42.825	21.833	67.170	1.000	27.79
ATOM	4286	N	GLY	B	253	44.161	20.145	67.819	1.000	23.41
ATOM	4287	CA	GLY	B	253	43.796	19.353	66.642	1.000	23.12
ATOM	4288	C	GLY	B	253	42.313	19.031	66.705	1.000	28.00
ATOM	4289	O	GLY	B	253	41.682	18.906	65.663	1.000	25.61
ATOM	4290	N	THR	B	254	41.803	18.914	67.932	1.000	30.82
ATOM	4291	CA	THR	B	254	40.382	18.631	68.136	1.000	28.89
ATOM	4292	CB	THR	B	254	40.052	18.236	69.589	1.000	30.33
ATOM	4293	OG1	THR	B	254	40.646	16.971	69.891	1.000	17.84
ATOM	4294	CG2	THR	B	254	38.553	18.043	69.764	1.000	23.85
ATOM	4295	C	THR	B	254	39.560	19.849	67.750	1.000	24.95
ATOM	4296	O	THR	B	254	38.534	19.750	67.093	1.000	25.70
ATOM	4297	N	PHE	B	255	40.023	21.033	68.168	1.000	20.14
ATOM	4298	CA	PHE	B	255	39.330	22.238	67.761	1.000	18.66
ATOM	4299	CB	PHE	B	255	40.055	23.472	68.309	1.000	20.98
ATOM	4300	CG	PHE	B	255	39.468	24.795	67.891	1.000	25.32
ATOM	4301	CD1	PHE	B	255	38.462	25.342	68.685	1.000	21.68
ATOM	4302	CE1	PHE	B	255	37.893	26.550	68.349	1.000	20.94
ATOM	4303	CZ	PHE	B	255	38.291	27.240	67.224	1.000	24.52
ATOM	4304	CE2	PHE	B	255	39.287	26.713	66.419	1.000	22.92
ATOM	4305	CD2	PHE	B	255	39.877	25.519	66.779	1.000	24.05
ATOM	4306	C	PHE	B	255	39.255	22.352	66.239	1.000	20.18
ATOM	4307	O	PHE	B	255	38.229	22.668	65.647	1.000	23.46
ATOM	4308	N	ILE	B	256	40.401	22.192	65.592	1.000	14.95
ATOM	4309	CA	ILE	B	256	40.468	22.444	64.155	1.000	19.23
ATOM	4310	CB	ILE	B	256	41.923	22.480	63.668	1.000	24.98
ATOM	4311	CG1	ILE	B	256	42.735	23.658	64.220	1.000	27.51
ATOM	4312	CD1	ILE	B	256	44.198	23.613	63.833	1.000	28.76
ATOM	4313	CG2	ILE	B	256	41.988	22.469	62.146	1.000	19.65
ATOM	4314	C	ILE	B	256	39.642	21.413	63.395	1.000	21.66
ATOM	4315	O	ILE	B	256	38.931	21.770	62.448	1.000	28.91

**FIGURE 89**

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ATOM	4316	N	ALA	B	257	39.699	20.142	63.782	1.000	18.05
ATOM	4317	CA	ALA	B	257	38.802	19.169	63.158	1.000	19.47
ATOM	4318	CB	ALA	B	257	38.987	17.798	63.775	1.000	21.30
ATOM	4319	C	ALA	B	257	37.346	19.600	63.303	1.000	24.28
ATOM	4320	O	ALA	B	257	36.588	19.578	62.335	1.000	29.52
ATOM	4321	N	LEU	B	258	36.913	19.998	64.506	1.000	19.55
ATOM	4322	CA	LEU	B	258	35.511	20.383	64.656	1.000	23.44
ATOM	4323	CB	LEU	B	258	35.187	20.725	66.109	1.000	26.54
ATOM	4324	CG	LEU	B	258	33.718	21.043	66.402	1.000	26.93
ATOM	4325	CD1	LEU	B	258	32.830	19.879	65.989	1.000	33.89
ATOM	4326	CD2	LEU	B	258	33.523	21.383	67.874	1.000	26.13
ATOM	4327	C	LEU	B	258	35.162	21.561	63.747	1.000	26.19
ATOM	4328	O	LEU	B	258	34.104	21.555	63.113	1.000	34.02
ATOM	4329	N	ASP	B	259	36.047	22.546	63.699	1.000	24.40
ATOM	4330	CA	ASP	B	259	35.925	23.714	62.834	1.000	27.44
ATOM	4331	CB	ASP	B	259	37.184	24.585	62.907	1.000	26.51
ATOM	4332	CG	ASP	B	259	37.015	25.907	62.185	1.000	31.73
ATOM	4333	OD1	ASP	B	259	35.871	26.400	62.144	1.000	33.45
ATOM	4334	OD2	ASP	B	259	38.013	26.448	61.664	1.000	25.69
ATOM	4335	C	ASP	B	259	35.678	23.286	61.392	1.000	22.95
ATOM	4336	O	ASP	B	259	34.813	23.822	60.702	1.000	30.45
ATOM	4337	N	ARG	B	260	36.446	22.302	60.950	1.000	26.62
ATOM	4338	CA	ARG	B	260	36.361	21.798	59.585	1.000	33.18
ATOM	4339	CB	ARG	B	260	37.519	20.835	59.319	1.000	31.29
ATOM	4340	CG	ARG	B	260	38.785	21.473	58.778	1.000	30.70
ATOM	4341	CD	ARG	B	260	39.239	20.700	57.536	1.000	37.95
ATOM	4342	NE	ARG	B	260	40.673	20.498	57.556	1.000	41.13
ATOM	4343	CZ	ARG	B	260	41.391	19.709	56.782	1.000	33.80
ATOM	4344	NH1	ARG	B	260	40.798	18.979	55.856	1.000	42.79
ATOM	4345	NH2	ARG	B	260	42.705	19.660	56.957	1.000	37.06
ATOM	4346	C	ARG	B	260	35.055	21.066	59.301	1.000	38.95
ATOM	4347	O	ARG	B	260	34.398	21.344	58.296	1.000	34.89
ATOM	4348	N	ILE	B	261	34.673	20.123	60.157	1.000	40.78
ATOM	4349	CA	ILE	B	261	33.506	19.282	59.888	1.000	36.65
ATOM	4350	CB	ILE	B	261	33.512	18.013	60.759	1.000	36.83
ATOM	4351	CG1	ILE	B	261	33.172	18.232	62.236	1.000	36.37
ATOM	4352	CD1	ILE	B	261	33.788	17.170	63.128	1.000	27.30
ATOM	4353	CG2	ILE	B	261	34.851	17.297	60.648	1.000	30.19
ATOM	4354	C	ILE	B	261	32.193	20.033	60.076	1.000	37.68
ATOM	4355	O	ILE	B	261	31.233	19.779	59.332	1.000	29.23
ATOM	4356	N	LEU	B	262	32.121	20.960	61.032	1.000	29.30
ATOM	4357	CA	LEU	B	262	30.910	21.778	61.134	1.000	34.05
ATOM	4358	CB	LEU	B	262	30.909	22.676	62.372	1.000	34.84
ATOM	4359	CG	LEU	B	262	30.865	21.951	63.722	1.000	33.81
ATOM	4360	CD1	LEU	B	262	30.907	22.931	64.886	1.000	29.40
ATOM	4361	CD2	LEU	B	262	29.628	21.067	63.813	1.000	31.05
ATOM	4362	C	LEU	B	262	30.763	22.639	59.882	1.000	49.12
ATOM	4363	O	LEU	B	262	29.667	23.081	59.538	1.000	56.67
ATOM	4364	N	GLN	B	263	31.888	22.887	59.204	1.000	44.18
ATOM	4365	CA	GLN	B	263	31.808	23.682	57.982	1.000	46.28
ATOM	4366	CB	GLN	B	263	33.169	24.218	57.542	1.000	42.43
ATOM	4367	CG	GLN	B	263	33.463	25.604	58.110	1.000	37.21

**FIGURE 90**

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ATOM	4368	CD	GLN	B	263	34.905	25.991	57.847	1.000	38.82
ATOM	4369	OE1	GLN	B	263	35.200	26.564	56.803	1.000	42.28
ATOM	4370	NE2	GLN	B	263	35.789	25.670	58.782	1.000	38.53
ATOM	4371	C	GLN	B	263	31.207	22.830	56.870	1.000	43.95
ATOM	4372	O	GLN	B	263	30.412	23.325	56.083	1.000	46.04
ATOM	4373	N	GLN	B	264	31.609	21.563	56.843	1.000	40.32
ATOM	4374	CA	GLN	B	264	31.058	20.637	55.859	1.000	43.58
ATOM	4375	CB	GLN	B	264	31.776	19.291	55.904	1.000	41.24
ATOM	4376	CG	GLN	B	264	33.299	19.353	55.893	1.000	32.42
ATOM	4377	CD	GLN	B	264	33.885	17.975	56.138	1.000	34.83
ATOM	4378	OE1	GLN	B	264	33.154	16.982	56.114	1.000	49.05
ATOM	4379	NE2	GLN	B	264	35.181	17.880	56.386	1.000	36.65
ATOM	4380	C	GLN	B	264	29.557	20.453	56.088	1.000	46.84
ATOM	4381	O	GLN	B	264	28.787	20.463	55.125	1.000	60.95
ATOM	4382	N	LEU	B	265	29.143	20.293	57.339	1.000	44.06
ATOM	4383	CA	LEU	B	265	27.744	20.092	57.689	1.000	48.45
ATOM	4384	CB	LEU	B	265	27.541	20.198	59.204	1.000	48.90
ATOM	4385	CG	LEU	B	265	28.027	19.015	60.044	1.000	49.51
ATOM	4386	CD1	LEU	B	265	27.374	19.048	61.416	1.000	39.17
ATOM	4387	CD2	LEU	B	265	27.761	17.702	59.326	1.000	46.39
ATOM	4388	C	LEU	B	265	26.816	21.098	57.009	1.000	55.29
ATOM	4389	O	LEU	B	265	25.738	20.747	56.529	1.000	61.57
ATOM	4390	N	ASP	B	266	27.242	22.353	56.989	1.000	56.37
ATOM	4391	CA	ASP	B	266	26.489	23.438	56.374	1.000	56.13
ATOM	4392	CB	ASP	B	266	26.708	24.734	57.154	1.000	62.09
ATOM	4393	CG	ASP	B	266	26.306	24.619	58.612	1.000	68.79
ATOM	4394	OD1	ASP	B	266	25.108	24.405	58.894	1.000	79.54
ATOM	4395	OD2	ASP	B	266	27.190	24.742	59.489	1.000	81.01
ATOM	4396	C	ASP	B	266	26.905	23.610	54.917	1.000	50.88
ATOM	4397	O	ASP	B	266	26.597	24.607	54.265	1.000	58.84
ATOM	4398	N	SER	B	267	27.632	22.622	54.407	1.000	53.13
ATOM	4399	CA	SER	B	267	28.177	22.699	53.056	1.000	64.34
ATOM	4400	CB	SER	B	267	29.708	22.798	53.101	1.000	56.46
ATOM	4401	OG	SER	B	267	30.143	24.108	52.784	1.000	60.08
ATOM	4402	C	SER	B	267	27.759	21.499	52.214	1.000	75.07
ATOM	4403	O	SER	B	267	26.653	21.444	51.677	1.000	79.48
ATOM	4404	N	LYS	B	268	28.656	20.523	52.092	1.000	83.42
ATOM	4405	CA	LYS	B	268	28.385	19.358	51.257	1.000	86.00
ATOM	4406	CB	LYS	B	268	29.664	18.545	51.050	1.000	90.22
ATOM	4407	CG	LYS	B	268	30.899	19.402	50.804	1.000	90.85
ATOM	4408	CD	LYS	B	268	31.608	19.724	52.110	1.000	87.44
ATOM	4409	CE	LYS	B	268	32.908	20.484	51.868	1.000	87.50
ATOM	4410	NZ	LYS	B	268	33.982	19.590	51.340	1.000	90.86
ATOM	4411	C	LYS	B	268	27.279	18.493	51.854	1.000	79.53
ATOM	4412	O	LYS	B	268	26.697	18.840	52.883	1.000	65.16
ATOM	4413	N	ASP	B	269	27.000	17.380	51.183	1.000	75.19
ATOM	4414	CA	ASP	B	269	25.948	16.453	51.576	1.000	74.46
ATOM	4415	CB	ASP	B	269	25.390	15.742	50.342	1.000	83.40
ATOM	4416	CG	ASP	B	269	25.381	16.633	49.114	1.000	92.95
ATOM	4417	OD1	ASP	B	269	24.301	16.816	48.509	1.000	99.02
ATOM	4418	OD2	ASP	B	269	26.460	17.153	48.752	1.000	105.13
ATOM	4419	C	ASP	B	269	26.475	15.440	52.584	1.000	69.56

**FIGURE 91**

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ATOM	4420	O	ASP	B	269	25.755	14.571	53.071	1.000	66.15
ATOM	4421	N	SER	B	270	27.763	15.573	52.883	1.000	63.01
ATOM	4422	CA	SER	B	270	28.449	14.658	53.782	1.000	53.77
ATOM	4423	CB	SER	B	270	29.261	13.633	52.991	1.000	58.45
ATOM	4424	OG	SER	B	270	30.230	12.983	53.797	1.000	73.26
ATOM	4425	C	SER	B	270	29.357	15.436	54.734	1.000	46.99
ATOM	4426	O	SER	B	270	29.393	16.664	54.654	1.000	42.15
ATOM	4427	N	VAL	B	271	30.035	14.690	55.588	1.000	48.78
ATOM	4428	CA	VAL	B	271	31.029	15.141	56.544	1.000	48.00
ATOM	4429	CB	VAL	B	271	30.446	15.379	57.946	1.000	49.59
ATOM	4430	CG1	VAL	B	271	29.390	14.335	58.283	1.000	49.18
ATOM	4431	CG2	VAL	B	271	31.569	15.369	58.980	1.000	36.94
ATOM	4432	C	VAL	B	271	32.145	14.100	56.637	1.000	42.78
ATOM	4433	O	VAL	B	271	31.864	12.911	56.794	1.000	49.77
ATOM	4434	N	ASP	B	272	33.390	14.532	56.524	1.000	38.85
ATOM	4435	CA	ASP	B	272	34.530	13.630	56.527	1.000	35.40
ATOM	4436	CB	ASP	B	272	35.438	13.862	55.314	1.000	27.29
ATOM	4437	CG	ASP	B	272	36.212	12.617	54.924	1.000	35.62
ATOM	4438	OD1	ASP	B	272	36.101	11.583	55.615	1.000	37.07
ATOM	4439	OD2	ASP	B	272	36.947	12.666	53.915	1.000	50.42
ATOM	4440	C	ASP	B	272	35.359	13.795	57.792	1.000	40.21
ATOM	4441	O	ASP	B	272	36.364	14.503	57.797	1.000	41.63
ATOM	4442	N	ILE	B	273	34.929	13.131	58.862	1.000	40.79
ATOM	4443	CA	ILE	B	273	35.679	13.285	60.108	1.000	34.29
ATOM	4444	CB	ILE	B	273	34.909	12.721	61.310	1.000	30.34
ATOM	4445	CG1	ILE	B	273	33.565	13.409	61.576	1.000	31.83
ATOM	4446	CD1	ILE	B	273	32.766	12.740	62.679	1.000	27.01
ATOM	4447	CG2	ILE	B	273	35.768	12.761	62.563	1.000	28.54
ATOM	4448	C	ILE	B	273	37.053	12.639	59.968	1.000	39.35
ATOM	4449	O	ILE	B	273	38.060	13.284	60.295	1.000	37.96
ATOM	4450	N	TYR	B	274	37.080	11.404	59.482	1.000	40.06
ATOM	4451	CA	TYR	B	274	38.320	10.692	59.209	1.000	36.37
ATOM	4452	CB	TYR	B	274	38.083	9.343	58.534	1.000	34.20
ATOM	4453	CG	TYR	B	274	39.288	8.485	58.221	1.000	26.44
ATOM	4454	CD1	TYR	B	274	39.691	7.499	59.115	1.000	29.38
ATOM	4455	CE1	TYR	B	274	40.787	6.698	58.847	1.000	34.20
ATOM	4456	CZ	TYR	B	274	41.501	6.863	57.683	1.000	32.34
ATOM	4457	OH	TYR	B	274	42.595	6.077	57.401	1.000	45.24
ATOM	4458	CE2	TYR	B	274	41.126	7.829	56.774	1.000	32.36
ATOM	4459	CD2	TYR	B	274	40.033	8.609	57.056	1.000	26.39
ATOM	4460	C	TYR	B	274	39.228	11.528	58.299	1.000	32.63
ATOM	4461	O	TYR	B	274	40.436	11.567	58.534	1.000	31.00
ATOM	4462	N	GLY	B	275	38.634	12.102	57.266	1.000	39.31
ATOM	4463	CA	GLY	B	275	39.375	12.824	56.239	1.000	35.88
ATOM	4464	C	GLY	B	275	40.102	14.006	56.865	1.000	40.67
ATOM	4465	O	GLY	B	275	41.263	14.270	56.555	1.000	33.84
ATOM	4466	N	ALA	B	276	39.376	14.679	57.751	1.000	36.51
ATOM	4467	CA	ALA	B	276	39.906	15.849	58.442	1.000	37.26
ATOM	4468	CB	ALA	B	276	38.791	16.511	59.244	1.000	29.45
ATOM	4469	C	ALA	B	276	41.097	15.502	59.323	1.000	31.12
ATOM	4470	O	ALA	B	276	42.147	16.150	59.234	1.000	27.41
ATOM	4471	N	VAL	B	277	40.972	14.480	60.169	1.000	28.39

**FIGURE 92**



ATOM	4472	CA	VAL	B	277	42.049	14.164	61.101	1.000	26.25
ATOM	4473	CB	VAL	B	277	41.639	13.101	62.138	1.000	27.10
ATOM	4474	CG1	VAL	B	277	42.882	12.558	62.827	1.000	24.03
ATOM	4475	CG2	VAL	B	277	40.671	13.681	63.159	1.000	28.27
ATOM	4476	C	VAL	B	277	43.306	13.654	60.402	1.000	31.14
ATOM	4477	O	VAL	B	277	44.411	13.880	60.897	1.000	29.79
ATOM	4478	N	HIS	B	278	43.121	12.975	59.277	1.000	27.18
ATOM	4479	CA	HIS	B	278	44.202	12.495	58.431	1.000	25.97
ATOM	4480	CB	HIS	B	278	43.601	11.645	57.309	1.000	33.39
ATOM	4481	CG	HIS	B	278	44.609	11.055	56.378	1.000	34.11
ATOM	4482	ND1	HIS	B	278	45.201	11.773	55.367	1.000	25.09
ATOM	4483	CE1	HIS	B	278	46.048	11.002	54.708	1.000	28.44
ATOM	4484	NE2	HIS	B	278	46.026	9.801	55.267	1.000	31.16
ATOM	4485	CD2	HIS	B	278	45.138	9.806	56.307	1.000	31.49
ATOM	4486	C	HIS	B	278	45.001	13.660	57.859	1.000	24.46
ATOM	4487	O	HIS	B	278	46.225	13.753	57.928	1.000	25.14
ATOM	4488	N	ASP	B	279	44.283	14.603	57.260	1.000	23.15
ATOM	4489	CA	ASP	B	279	44.887	15.817	56.715	1.000	24.67
ATOM	4490	CB	ASP	B	279	43.776	16.718	56.178	1.000	29.92
ATOM	4491	CG	ASP	B	279	44.160	17.578	55.001	1.000	37.07
ATOM	4492	OD1	ASP	B	279	45.077	17.212	54.235	1.000	38.06
ATOM	4493	OD2	ASP	B	279	43.537	18.648	54.835	1.000	30.88
ATOM	4494	C	ASP	B	279	45.706	16.530	57.784	1.000	25.54
ATOM	4495	O	ASP	B	279	46.843	16.941	57.550	1.000	21.93
ATOM	4496	N	LEU	B	280	45.150	16.673	58.991	1.000	18.66
ATOM	4497	CA	LEU	B	280	45.867	17.373	60.061	1.000	27.59
ATOM	4498	CB	LEU	B	280	45.025	17.491	61.331	1.000	23.76
ATOM	4499	CG	LEU	B	280	43.732	18.302	61.281	1.000	29.33
ATOM	4500	CD1	LEU	B	280	43.374	18.821	62.668	1.000	34.75
ATOM	4501	CD2	LEU	B	280	43.836	19.450	60.293	1.000	30.06
ATOM	4502	C	LEU	B	280	47.181	16.678	60.432	1.000	33.16
ATOM	4503	O	LEU	B	280	48.218	17.326	60.576	1.000	22.56
ATOM	4504	N	ARG	B	281	47.077	15.363	60.589	1.000	29.37
ATOM	4505	CA	ARG	B	281	48.168	14.491	60.979	1.000	31.07
ATOM	4506	CB	ARG	B	281	47.675	13.042	61.092	1.000	28.63
ATOM	4507	CG	ARG	B	281	46.655	12.833	62.199	1.000	26.35
ATOM	4508	CD	ARG	B	281	47.328	12.460	63.506	1.000	27.07
ATOM	4509	NE	ARG	B	281	46.350	12.116	64.535	1.000	30.18
ATOM	4510	CZ	ARG	B	281	46.041	10.880	64.893	1.000	27.85
ATOM	4511	NH1	ARG	B	281	46.628	9.852	64.310	1.000	31.06
ATOM	4512	NH2	ARG	B	281	45.138	10.667	65.838	1.000	39.11
ATOM	4513	C	ARG	B	281	49.318	14.561	59.985	1.000	29.17
ATOM	4514	O	ARG	B	281	50.478	14.363	60.347	1.000	28.56
ATOM	4515	N	LEU	B	282	48.986	14.842	58.727	1.000	30.67
ATOM	4516	CA	LEU	B	282	50.041	15.001	57.727	1.000	30.29
ATOM	4517	CB	LEU	B	282	49.455	15.139	56.327	1.000	24.52
ATOM	4518	CG	LEU	B	282	48.830	13.899	55.689	1.000	27.65
ATOM	4519	CD1	LEU	B	282	48.201	14.290	54.357	1.000	22.99
ATOM	4520	CD2	LEU	B	282	49.859	12.792	55.511	1.000	27.48
ATOM	4521	C	LEU	B	282	50.913	16.222	58.014	1.000	27.27
ATOM	4522	O	LEU	B	282	52.030	16.277	57.506	1.000	26.46
ATOM	4523	N	HIS	B	283	50.418	17.178	58.794	1.000	26.63

FIGURE 93

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ATOM	4524	CA	HIS	B	283	51.104	18.459	58.962	1.000	28.55
ATOM	4525	CB	HIS	B	283	50.157	19.615	58.551	1.000	26.78
ATOM	4526	CG	HIS	B	283	49.852	19.437	57.083	1.000	31.38
ATOM	4527	ND1	HIS	B	283	50.669	19.906	56.078	1.000	29.31
ATOM	4528	CE1	HIS	B	283	50.164	19.584	54.901	1.000	26.22
ATOM	4529	NE2	HIS	B	283	49.048	18.905	55.114	1.000	26.82
ATOM	4530	CD2	HIS	B	283	48.838	18.792	56.461	1.000	28.69
ATOM	4531	C	HIS	B	283	51.658	18.636	60.359	1.000	26.35
ATOM	4532	O	HIS	B	283	52.552	19.465	60.565	1.000	24.96
ATOM	4533	N	ARG	B	284	51.186	17.858	61.335	1.000	20.29
ATOM	4534	CA	ARG	B	284	51.798	17.980	62.664	1.000	21.12
ATOM	4535	CB	ARG	B	284	51.322	19.245	63.391	1.000	20.38
ATOM	4536	CG	ARG	B	284	52.150	19.588	64.639	1.000	22.36
ATOM	4537	CD	ARG	B	284	51.699	20.875	65.292	1.000	21.53
ATOM	4538	NE	ARG	B	284	52.054	21.061	66.698	1.000	19.46
ATOM	4539	CZ	ARG	B	284	53.142	21.705	67.107	1.000	25.24
ATOM	4540	NH1	ARG	B	284	54.004	22.225	66.238	1.000	24.69
ATOM	4541	NH2	ARG	B	284	53.412	21.850	68.402	1.000	27.97
ATOM	4542	C	ARG	B	284	51.493	16.731	63.482	1.000	16.74
ATOM	4543	O	ARG	B	284	50.383	16.207	63.410	1.000	20.61
ATOM	4544	N	VAL	B	285	52.454	16.252	64.253	1.000	21.81
ATOM	4545	CA	VAL	B	285	52.238	15.089	65.112	1.000	29.13
ATOM	4546	CB	VAL	B	285	53.540	14.760	65.869	1.000	29.57
ATOM	4547	CG1	VAL	B	285	53.834	15.855	66.888	1.000	24.27
ATOM	4548	CG2	VAL	B	285	53.448	13.399	66.536	1.000	22.96
ATOM	4549	C	VAL	B	285	51.105	15.309	66.112	1.000	27.63
ATOM	4550	O	VAL	B	285	50.869	16.442	66.513	1.000	21.60
ATOM	4551	N	HIS	B	286	50.396	14.271	66.516	1.000	32.06
ATOM	4552	CA	HIS	B	286	49.336	14.195	67.498	1.000	25.21
ATOM	4553	CB	HIS	B	286	49.885	14.551	68.892	1.000	28.70
ATOM	4554	CG	HIS	B	286	51.021	13.664	69.305	1.000	32.98
ATOM	4555	ND1	HIS	B	286	51.067	12.319	69.031	1.000	39.17
ATOM	4556	CE1	HIS	B	286	52.186	11.799	69.506	1.000	36.14
ATOM	4557	NE2	HIS	B	286	52.871	12.769	70.082	1.000	30.56
ATOM	4558	CD2	HIS	B	286	52.169	13.944	69.969	1.000	33.55
ATOM	4559	C	HIS	B	286	48.127	15.077	67.218	1.000	30.46
ATOM	4560	O	HIS	B	286	47.387	15.403	68.154	1.000	40.44
ATOM	4561	N	MET	B	287	47.881	15.467	65.973	1.000	22.86
ATOM	4562	CA	MET	B	287	46.691	16.259	65.664	1.000	22.17
ATOM	4563	CB	MET	B	287	46.756	16.854	64.270	1.000	18.80
ATOM	4564	CG	MET	B	287	47.775	17.949	64.042	1.000	29.11
ATOM	4565	SD	MET	B	287	47.516	19.438	65.055	1.000	32.43
ATOM	4566	CE	MET	B	287	48.661	19.026	66.372	1.000	13.54
ATOM	4567	C	MET	B	287	45.457	15.368	65.848	1.000	29.49
ATOM	4568	O	MET	B	287	45.182	14.511	65.013	1.000	22.99
ATOM	4569	N	VAL	B	288	44.774	15.611	66.952	1.000	34.12
ATOM	4570	CA	VAL	B	288	43.740	14.820	67.589	1.000	28.81
ATOM	4571	CB	VAL	B	288	42.560	14.478	66.675	1.000	27.58
ATOM	4572	CG1	VAL	B	288	41.636	13.502	67.385	1.000	26.91
ATOM	4573	CG2	VAL	B	288	41.797	15.726	66.275	1.000	19.05
ATOM	4574	C	VAL	B	288	44.390	13.535	68.093	1.000	30.95
ATOM	4575	O	VAL	B	288	44.556	12.583	67.334	1.000	40.72

**FIGURE 94**

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ATOM	4576	N	GLN	B	289	44.783	13.526	69.362	1.000	42.21
ATOM	4577	CA	GLN	B	289	45.728	12.504	69.827	1.000	40.64
ATOM	4578	CB	GLN	B	289	46.907	13.254	70.450	1.000	38.74
ATOM	4579	CG	GLN	B	289	47.311	12.901	71.865	1.000	38.30
ATOM	4580	CD	GLN	B	289	48.223	13.989	72.413	1.000	37.90
ATOM	4581	OE1	GLN	B	289	47.738	15.038	72.837	1.000	34.96
ATOM	4582	NE2	GLN	B	289	49.525	13.736	72.392	1.000	42.59
ATOM	4583	C	GLN	B	289	45.156	11.454	70.756	1.000	35.16
ATOM	4584	O	GLN	B	289	45.899	10.560	71.181	1.000	34.51
ATOM	4585	N	THR	B	290	43.869	11.469	71.086	1.000	27.99
ATOM	4586	CA	THR	B	290	43.294	10.342	71.819	1.000	34.56
ATOM	4587	CB	THR	B	290	42.922	10.643	73.277	1.000	36.69
ATOM	4588	OG1	THR	B	290	41.958	11.699	73.369	1.000	39.54
ATOM	4589	CG2	THR	B	290	44.140	11.134	74.049	1.000	28.24
ATOM	4590	C	THR	B	290	42.053	9.858	71.067	1.000	45.19
ATOM	4591	O	THR	B	290	41.423	10.630	70.344	1.000	37.85
ATOM	4592	N	GLU	B	291	41.708	8.583	71.228	1.000	40.04
ATOM	4593	CA	GLU	B	291	40.514	8.060	70.569	1.000	31.40
ATOM	4594	CB	GLU	B	291	40.426	6.549	70.769	1.000	33.20
ATOM	4595	CG	GLU	B	291	38.992	6.033	70.734	1.000	54.35
ATOM	4596	CD	GLU	B	291	38.936	4.515	70.792	1.000	61.38
ATOM	4597	OE1	GLU	B	291	37.831	3.978	71.011	1.000	56.63
ATOM	4598	OE2	GLU	B	291	40.009	3.898	70.610	1.000	65.55
ATOM	4599	C	GLU	B	291	39.274	8.756	71.108	1.000	27.13
ATOM	4600	O	GLU	B	291	38.289	9.026	70.424	1.000	39.02
ATOM	4601	N	CYS	B	292	39.330	9.074	72.393	1.000	30.92
ATOM	4602	CA	CYS	B	292	38.290	9.823	73.085	1.000	28.64
ATOM	4603	CB	CYS	B	292	38.815	10.131	74.493	1.000	36.66
ATOM	4604	SG	CYS	B	292	37.722	11.163	75.490	1.000	55.37
ATOM	4605	C	CYS	B	292	37.903	11.103	72.351	1.000	31.79
ATOM	4606	O	CYS	B	292	36.723	11.332	72.070	1.000	36.92
ATOM	4607	N	GLN	B	293	38.892	11.940	72.039	1.000	33.19
ATOM	4608	CA	GLN	B	293	38.724	13.169	71.267	1.000	28.60
ATOM	4609	CB	GLN	B	293	40.056	13.880	71.039	1.000	27.95
ATOM	4610	CG	GLN	B	293	40.532	14.744	72.194	1.000	27.18
ATOM	4611	CD	GLN	B	293	42.023	15.015	72.172	1.000	33.21
ATOM	4612	OE1	GLN	B	293	42.730	14.694	71.211	1.000	26.74
ATOM	4613	NE2	GLN	B	293	42.533	15.611	73.245	1.000	24.69
ATOM	4614	C	GLN	B	293	38.076	12.811	69.931	1.000	28.40
ATOM	4615	O	GLN	B	293	37.089	13.407	69.513	1.000	41.52
ATOM	4616	N	TYR	B	294	38.647	11.795	69.281	1.000	24.64
ATOM	4617	CA	TYR	B	294	38.065	11.284	68.041	1.000	29.87
ATOM	4618	CB	TYR	B	294	38.826	10.059	67.528	1.000	35.21
ATOM	4619	CG	TYR	B	294	38.549	9.719	66.079	1.000	39.63
ATOM	4620	CD1	TYR	B	294	38.696	10.672	65.081	1.000	28.61
ATOM	4621	CE1	TYR	B	294	38.451	10.386	63.754	1.000	28.44
ATOM	4622	CZ	TYR	B	294	38.047	9.119	63.401	1.000	38.28
ATOM	4623	OH	TYR	B	294	37.803	8.837	62.078	1.000	41.13
ATOM	4624	CE2	TYR	B	294	37.891	8.151	64.368	1.000	40.14
ATOM	4625	CD2	TYR	B	294	38.141	8.446	65.695	1.000	38.49
ATOM	4626	C	TYR	B	294	36.603	10.923	68.261	1.000	28.62
ATOM	4627	O	TYR	B	294	35.741	11.211	67.434	1.000	36.24

**FIGURE 95**

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ATOM	4628	N	VAL	B	295	36.302	10.285	69.396	1.000	34.52
ATOM	4629	CA	VAL	B	295	34.910	9.921	69.662	1.000	31.51
ATOM	4630	CB	VAL	B	295	34.752	9.065	70.932	1.000	35.21
ATOM	4631	CG1	VAL	B	295	33.272	8.911	71.238	1.000	40.28
ATOM	4632	CG2	VAL	B	295	35.432	7.720	70.755	1.000	35.85
ATOM	4633	C	VAL	B	295	34.043	11.161	69.834	1.000	27.72
ATOM	4634	O	VAL	B	295	32.911	11.223	69.360	1.000	36.42
ATOM	4635	N	TYR	B	296	34.613	12.139	70.527	1.000	37.43
ATOM	4636	CA	TYR	B	296	33.941	13.417	70.761	1.000	36.42
ATOM	4637	CB	TYR	B	296	34.866	14.321	71.578	1.000	43.28
ATOM	4638	CG	TYR	B	296	34.259	15.599	72.102	1.000	42.68
ATOM	4639	CD1	TYR	B	296	33.533	15.620	73.285	1.000	41.40
ATOM	4640	CE1	TYR	B	296	32.979	16.794	73.765	1.000	39.34
ATOM	4641	CZ	TYR	B	296	33.146	17.964	73.062	1.000	34.82
ATOM	4642	OH	TYR	B	296	32.597	19.132	73.530	1.000	27.53
ATOM	4643	CE2	TYR	B	296	33.865	17.973	71.884	1.000	41.20
ATOM	4644	CD2	TYR	B	296	34.415	16.796	71.415	1.000	43.82
ATOM	4645	C	TYR	B	296	33.527	14.083	69.458	1.000	28.58
ATOM	4646	O	TYR	B	296	32.421	14.622	69.341	1.000	31.47
ATOM	4647	N	LEU	B	297	34.403	14.066	68.453	1.000	30.22
ATOM	4648	CA	LEU	B	297	34.076	14.745	67.196	1.000	30.67
ATOM	4649	CB	LEU	B	297	35.195	14.583	66.180	1.000	30.58
ATOM	4650	CG	LEU	B	297	36.483	15.373	66.375	1.000	32.73
ATOM	4651	CD1	LEU	B	297	37.535	14.919	65.367	1.000	29.68
ATOM	4652	CD2	LEU	B	297	36.220	16.866	66.250	1.000	27.24
ATOM	4653	C	LEU	B	297	32.782	14.187	66.605	1.000	33.83
ATOM	4654	O	LEU	B	297	31.891	14.932	66.215	1.000	31.16
ATOM	4655	N	HIS	B	298	32.737	12.860	66.570	1.000	41.22
ATOM	4656	CA	HIS	B	298	31.562	12.114	66.138	1.000	38.95
ATOM	4657	CB	HIS	B	298	31.818	10.612	66.255	1.000	34.71
ATOM	4658	CG	HIS	B	298	32.822	10.070	65.285	1.000	34.66
ATOM	4659	ND1	HIS	B	298	34.177	10.070	65.531	1.000	40.08
ATOM	4660	CE1	HIS	B	298	34.825	9.528	64.511	1.000	38.60
ATOM	4661	NE2	HIS	B	298	33.935	9.166	63.602	1.000	36.65
ATOM	4662	CD2	HIS	B	298	32.679	9.494	64.071	1.000	35.52
ATOM	4663	C	HIS	B	298	30.340	12.523	66.951	1.000	36.47
ATOM	4664	O	HIS	B	298	29.314	12.914	66.389	1.000	36.46
ATOM	4665	N	GLN	B	299	30.420	12.464	68.280	1.000	33.50
ATOM	4666	CA	GLN	B	299	29.250	12.855	69.073	1.000	36.05
ATOM	4667	CB	GLN	B	299	29.525	12.674	70.563	1.000	39.72
ATOM	4668	CG	GLN	B	299	30.053	11.279	70.887	1.000	48.51
ATOM	4669	CD	GLN	B	299	30.367	11.132	72.362	1.000	53.01
ATOM	4670	OE1	GLN	B	299	30.932	12.045	72.967	1.000	50.76
ATOM	4671	NE2	GLN	B	299	29.999	9.994	72.931	1.000	51.27
ATOM	4672	C	GLN	B	299	28.841	14.289	68.782	1.000	38.19
ATOM	4673	O	GLN	B	299	27.660	14.644	68.781	1.000	36.44
ATOM	4674	N	CYS	B	300	29.837	15.136	68.520	1.000	36.51
ATOM	4675	CA	CYS	B	300	29.496	16.519	68.201	1.000	31.01
ATOM	4676	CB	CYS	B	300	30.752	17.368	68.017	1.000	32.05
ATOM	4677	SG	CYS	B	300	31.545	17.931	69.542	1.000	33.82
ATOM	4678	C	CYS	B	300	28.665	16.568	66.925	1.000	30.84
ATOM	4679	O	CYS	B	300	27.706	17.327	66.828	1.000	37.19

**FIGURE 96**

ATOM	4680	N	VAL	B	301	29.042	15.767	65.927	1.000	30.57
ATOM	4681	CA	VAL	B	301	28.357	15.877	64.636	1.000	35.77
ATOM	4682	CB	VAL	B	301	29.131	15.124	63.542	1.000	37.54
ATOM	4683	CG1	VAL	B	301	28.252	14.886	62.327	1.000	28.37
ATOM	4684	CG2	VAL	B	301	30.380	15.915	63.165	1.000	38.14
ATOM	4685	C	VAL	B	301	26.925	15.369	64.735	1.000	39.26
ATOM	4686	O	VAL	B	301	25.977	16.025	64.295	1.000	52.69
ATOM	4687	N	ARG	B	302	26.736	14.201	65.327	1.000	38.31
ATOM	4688	CA	ARG	B	302	25.403	13.654	65.555	1.000	45.66
ATOM	4689	CB	ARG	B	302	25.506	12.385	66.410	1.000	42.74
ATOM	4690	CG	ARG	B	302	24.268	12.102	67.240	1.000	46.88
ATOM	4691	CD	ARG	B	302	24.579	11.103	68.354	1.000	45.04
ATOM	4692	NE	ARG	B	302	25.118	11.799	69.513	1.000	48.32
ATOM	4693	CZ	ARG	B	302	25.697	11.252	70.567	1.000	45.65
ATOM	4694	NH1	ARG	B	302	25.838	9.937	70.659	1.000	43.04
ATOM	4695	NH2	ARG	B	302	26.131	12.057	71.531	1.000	48.35
ATOM	4696	C	ARG	B	302	24.480	14.642	66.256	1.000	54.36
ATOM	4697	O	ARG	B	302	23.339	14.882	65.856	1.000	40.59
ATOM	4698	N	ASP	B	303	24.975	15.234	67.348	1.000	56.40
ATOM	4699	CA	ASP	B	303	24.142	16.171	68.100	1.000	55.70
ATOM	4700	CB	ASP	B	303	24.898	16.662	69.342	1.000	57.02
ATOM	4701	CG	ASP	B	303	25.181	15.521	70.303	1.000	59.83
ATOM	4702	OD1	ASP	B	303	24.651	14.412	70.073	1.000	59.82
ATOM	4703	OD2	ASP	B	303	25.930	15.724	71.281	1.000	60.83
ATOM	4704	C	ASP	B	303	23.688	17.342	67.236	1.000	50.72
ATOM	4705	O	ASP	B	303	22.538	17.775	67.357	1.000	47.41
ATOM	4706	N	VAL	B	304	24.571	17.839	66.374	1.000	44.96
ATOM	4707	CA	VAL	B	304	24.268	18.980	65.512	1.000	47.93
ATOM	4708	CB	VAL	B	304	25.515	19.435	64.739	1.000	46.69
ATOM	4709	CG1	VAL	B	304	25.147	20.348	63.575	1.000	43.96
ATOM	4710	CG2	VAL	B	304	26.484	20.141	65.677	1.000	44.01
ATOM	4711	C	VAL	B	304	23.137	18.626	64.546	1.000	53.73
ATOM	4712	O	VAL	B	304	22.178	19.375	64.347	1.000	37.08
ATOM	4713	N	LEU	B	305	23.286	17.442	63.958	1.000	51.48
ATOM	4714	CA	LEU	B	305	22.264	16.852	63.108	1.000	52.53
ATOM	4715	CB	LEU	B	305	22.789	15.569	62.455	1.000	39.00
ATOM	4716	CG	LEU	B	305	24.083	15.749	61.649	1.000	37.23
ATOM	4717	CD1	LEU	B	305	24.587	14.409	61.143	1.000	51.92
ATOM	4718	CD2	LEU	B	305	23.868	16.711	60.496	1.000	36.51
ATOM	4719	C	LEU	B	305	20.979	16.583	63.901	1.000	53.75
ATOM	4720	O	LEU	B	305	19.939	17.100	63.476	1.000	35.65
ATOM	4721	N	ARG	B	306	21.076	15.820	64.980	1.000	57.84
ATOM	4722	CA	ARG	B	306	20.003	15.505	65.913	1.000	58.04
ATOM	4723	CB	ARG	B	306	20.540	15.067	67.268	1.000	54.34
ATOM	4724	CG	ARG	B	306	20.660	13.573	67.496	1.000	55.97
ATOM	4725	CD	ARG	B	306	21.035	13.272	68.943	1.000	61.19
ATOM	4726	NE	ARG	B	306	21.719	11.995	69.097	1.000	68.99
ATOM	4727	CZ	ARG	B	306	21.752	11.249	70.190	1.000	74.79
ATOM	4728	NH1	ARG	B	306	21.132	11.608	71.304	1.000	69.23
ATOM	4729	NH2	ARG	B	306	22.421	10.100	70.183	1.000	80.87
ATOM	4730	C	ARG	B	306	19.118	16.738	66.111	1.000	62.20
ATOM	4731	O	ARG	B	306	17.971	16.763	65.681	1.000	63.69

FIGURE 97

ATOM	4732	N	ALA	B	307	19.734	17.737	66.728	1.000	65.49
ATOM	4733	CA	ALA	B	307	19.143	19.057	66.891	1.000	64.51
ATOM	4734	CB	ALA	B	307	20.143	19.994	67.558	1.000	51.87
ATOM	4735	C	ALA	B	307	18.680	19.605	65.548	1.000	64.66
ATOM	4736	O	ALA	B	307	17.611	20.209	65.423	1.000	65.97
ATOM	4737	N	ARG	B	308	19.468	19.412	64.491	1.000	61.42
ATOM	4738	CA	ARG	B	308	19.012	19.929	63.193	1.000	70.94
ATOM	4739	CB	ARG	B	308	20.088	19.697	62.137	1.000	76.27
ATOM	4740	CG	ARG	B	308	19.741	20.209	60.748	1.000	86.23
ATOM	4741	CD	ARG	B	308	20.397	21.547	60.456	1.000	95.24
ATOM	4742	NE	ARG	B	308	21.821	21.417	60.163	1.000	101.38
ATOM	4743	CZ	ARG	B	308	22.786	21.666	61.049	1.000	107.77
ATOM	4744	NH1	ARG	B	308	22.485	22.054	62.288	1.000	110.29
ATOM	4745	NH2	ARG	B	308	24.056	21.519	60.695	1.000	113.92
ATOM	4746	C	ARG	B	308	17.685	19.293	62.787	1.000	73.80
ATOM	4747	O	ARG	B	308	16.827	19.955	62.197	1.000	73.18
ATOM	4748	N	LYS	B	309	17.486	18.015	63.102	1.000	73.43
ATOM	4749	CA	LYS	B	309	16.283	17.286	62.718	1.000	76.77
ATOM	4750	CB	LYS	B	309	16.472	15.788	62.979	1.000	79.31
ATOM	4751	CG	LYS	B	309	17.591	15.149	62.164	1.000	80.69
ATOM	4752	CD	LYS	B	309	17.436	13.637	62.104	1.000	82.88
ATOM	4753	CE	LYS	B	309	18.186	13.050	60.925	1.000	82.69
ATOM	4754	NZ	LYS	B	309	19.523	12.501	61.319	1.000	75.87
ATOM	4755	C	LYS	B	309	15.033	17.778	63.442	1.000	74.89
ATOM	4756	O	LYS	B	309	14.006	18.014	62.802	1.000	70.03
ATOM	4757	N	LEU	B	310	15.106	17.915	64.760	1.000	66.81
ATOM	4758	CA	LEU	B	310	13.993	18.391	65.566	1.000	57.56
ATOM	4759	CB	LEU	B	310	14.439	18.679	67.003	1.000	58.43
ATOM	4760	CG	LEU	B	310	14.439	17.504	67.980	1.000	59.58
ATOM	4761	CD1	LEU	B	310	15.451	17.728	69.090	1.000	37.85
ATOM	4762	CD2	LEU	B	310	13.055	17.278	68.570	1.000	65.92
ATOM	4763	C	LEU	B	310	13.371	19.657	64.978	1.000	57.95
ATOM	4764	O	LEU	B	310	12.371	20.157	65.507	1.000	56.97
ATOM	4765	O1	HOH	W	1	-3.530	-2.470	27.550	1.000	17.96
ATOM	4766	O1	HOH	W	2	60.077	26.796	63.038	1.000	15.33
ATOM	4767	O1	HOH	W	3	55.045	17.613	63.918	1.000	20.66
ATOM	4768	O1	HOH	W	4	10.035	-6.431	48.617	1.000	19.03
ATOM	4769	O1	HOH	W	5	-2.541	7.405	22.573	1.000	24.15
ATOM	4770	O1	HOH	W	6	-1.465	3.010	37.742	1.000	20.37
ATOM	4771	O1	HOH	W	7	1.064	6.887	29.228	1.000	21.37
ATOM	4772	O1	HOH	W	8	12.797	-10.463	28.170	1.000	21.33
ATOM	4773	O1	HOH	W	9	44.023	30.928	82.230	1.000	23.35
ATOM	4774	O1	HOH	W	10	15.262	-6.127	25.706	1.000	20.03
ATOM	4775	O1	HOH	W	11	41.135	13.077	75.806	1.000	24.83
ATOM	4776	O1	HOH	W	12	44.160	35.266	61.596	1.000	21.20
ATOM	4777	O1	HOH	W	13	-2.293	13.135	27.030	1.000	29.16
ATOM	4778	O1	HOH	W	14	-1.152	-4.851	36.331	1.000	18.92
ATOM	4779	O1	HOH	W	15	12.494	-9.297	20.888	1.000	32.44
ATOM	4780	O1	HOH	W	16	10.561	-4.413	17.800	1.000	27.50
ATOM	4781	O1	HOH	W	17	12.953	-1.978	15.793	1.000	23.51
ATOM	4782	O1	HOH	W	18	54.169	29.526	70.613	1.000	20.32
ATOM	4783	O1	HOH	W	19	13.709	11.416	42.827	1.000	18.88

FIGURE 98

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Three Dimensional Coordinates of HPTPbeta

ATOM	4784	O1	HOH	W	20	55.731	28.213	80.604	1.000	26.83
ATOM	4785	O1	HOH	W	21	4.760	11.444	27.886	1.000	20.66
ATOM	4786	O1	HOH	W	22	56.913	29.110	71.387	1.000	17.72
ATOM	4787	O1	HOH	W	23	18.440	-8.145	47.574	1.000	28.67
ATOM	4788	O1	HOH	W	24	51.613	13.126	62.266	1.000	25.40
ATOM	4789	O1	HOH	W	25	56.785	21.500	72.666	1.000	22.09
ATOM	4790	O1	HOH	W	26	46.913	32.045	55.417	1.000	36.86
ATOM	4791	O1	HOH	W	27	10.490	-7.264	21.479	1.000	24.68
ATOM	4792	O1	HOH	W	28	-4.811	-5.788	33.716	1.000	23.37
ATOM	4793	O1	HOH	W	29	58.662	11.046	62.178	1.000	28.32
ATOM	4794	O1	HOH	W	30	40.935	36.024	75.388	1.000	36.78
ATOM	4795	O1	HOH	W	31	56.949	30.099	57.221	1.000	20.47
ATOM	4796	O1	HOH	W	32	45.404	15.934	74.179	1.000	31.95
ATOM	4797	O1	HOH	W	33	-6.695	-5.778	43.032	1.000	31.77
ATOM	4798	O1	HOH	W	34	46.397	21.045	76.403	1.000	35.06
ATOM	4799	O1	HOH	W	35	60.957	30.231	69.118	1.000	21.63
ATOM	4800	O1	HOH	W	36	-3.350	-17.246	31.808	1.000	41.60
ATOM	4801	O1	HOH	W	37	55.555	12.895	71.190	1.000	29.48
ATOM	4802	O1	HOH	W	38	1.468	-5.097	35.986	1.000	22.35
ATOM	4803	O1	HOH	W	39	15.156	-9.650	27.646	1.000	20.92
ATOM	4804	O1	HOH	W	40	38.773	25.200	57.849	1.000	23.39
ATOM	4805	O1	HOH	W	41	10.348	17.067	32.030	1.000	41.46
ATOM	4806	O1	HOH	W	42	1.648	-14.559	44.147	1.000	28.83
ATOM	4807	O1	HOH	W	43	61.596	20.901	62.903	1.000	28.38
ATOM	4808	O1	HOH	W	44	14.144	-11.298	42.153	1.000	36.30
ATOM	4809	O1	HOH	W	45	59.647	17.031	57.868	1.000	23.78
ATOM	4810	O1	HOH	W	46	53.695	23.952	54.917	1.000	39.83
ATOM	4811	O1	HOH	W	47	27.056	31.327	66.272	1.000	55.85
ATOM	4812	O1	HOH	W	48	37.053	41.920	74.032	1.000	46.26
ATOM	4813	O1	HOH	W	49	-2.397	0.653	20.483	1.000	37.18
ATOM	4814	O1	HOH	W	50	41.473	15.741	75.531	1.000	43.52
ATOM	4815	O1	HOH	W	51	-2.370	-15.863	33.885	1.000	30.41
ATOM	4816	O1	HOH	W	52	-12.538	6.131	27.682	1.000	29.52
ATOM	4817	O1	HOH	W	53	53.221	16.883	55.102	1.000	33.14
ATOM	4818	O1	HOH	W	54	14.966	-8.503	24.747	1.000	25.12
ATOM	4819	O1	HOH	W	55	8.494	-4.831	50.889	1.000	30.18
ATOM	4820	O1	HOH	W	56	24.585	-9.942	22.611	1.000	54.01
ATOM	4821	O1	HOH	W	57	18.441	-20.771	46.004	1.000	39.24
ATOM	4822	O1	HOH	W	58	51.873	22.607	56.086	1.000	29.82
ATOM	4823	O1	HOH	W	59	1.396	-6.152	18.909	1.000	47.00
ATOM	4824	O1	HOH	W	60	44.607	38.534	81.740	1.000	40.03
ATOM	4825	O1	HOH	W	61	18.322	-0.373	24.933	1.000	28.92
ATOM	4826	O1	HOH	W	62	39.406	39.382	64.024	1.000	36.75
ATOM	4827	O1	HOH	W	63	71.786	42.646	67.354	1.000	38.18
ATOM	4828	O1	HOH	W	64	41.387	20.207	52.496	1.000	61.66
ATOM	4829	O1	HOH	W	65	58.599	39.944	69.257	1.000	22.54
ATOM	4830	O1	HOH	W	66	7.902	0.663	20.612	1.000	25.67
ATOM	4831	O1	HOH	W	67	49.818	23.739	54.522	1.000	26.64
ATOM	4832	O1	HOH	W	68	0.323	-5.848	22.222	1.000	21.16
ATOM	4833	O1	HOH	W	69	8.339	-2.798	16.062	1.000	35.15
ATOM	4834	O1	HOH	W	70	10.628	-6.726	18.494	1.000	23.48
ATOM	4835	O1	HOH	W	71	34.368	9.766	58.834	1.000	46.05

**FIGURE 99**

ATOM	4836	O1	HOH	W	72	0.104	-9.966	24.934	1.000	31.25
ATOM	4837	O1	HOH	W	73	-3.205	-3.781	34.722	1.000	24.34
ATOM	4838	O1	HOH	W	74	40.443	25.217	78.384	1.000	21.19
ATOM	4839	O1	HOH	W	75	60.161	17.919	77.858	1.000	43.49
ATOM	4840	O1	HOH	W	76	57.383	25.403	56.423	1.000	28.69
ATOM	4841	O1	HOH	W	77	-0.918	-4.290	45.708	1.000	23.94
ATOM	4842	O1	HOH	W	78	39.671	29.793	57.818	1.000	28.43
ATOM	4843	O1	HOH	W	79	-0.151	-0.962	21.277	1.000	31.95
ATOM	4844	O1	HOH	W	80	7.936	-8.337	20.044	1.000	31.62
ATOM	4845	O1	HOH	W	81	41.764	30.809	59.091	1.000	32.37
ATOM	4846	O1	HOH	W	82	16.518	-9.547	23.062	1.000	37.01
ATOM	4847	O1	HOH	W	83	30.713	30.994	77.311	1.000	33.53
ATOM	4848	O1	HOH	W	84	28.454	-2.369	72.054	1.000	47.39
ATOM	4849	O1	HOH	W	85	-5.917	-8.292	22.002	1.000	37.83
ATOM	4850	O1	HOH	W	86	7.580	-10.565	21.487	1.000	31.50
ATOM	4851	O1	HOH	W	87	13.747	8.631	42.204	1.000	29.91
ATOM	4852	O1	HOH	W	88	34.378	8.211	61.163	1.000	35.02
ATOM	4853	O1	HOH	W	89	55.698	21.340	61.326	1.000	34.48
ATOM	4854	O1	HOH	W	90	-0.448	-6.040	47.787	1.000	38.54
ATOM	4855	O1	HOH	W	91	-0.537	-4.018	20.186	1.000	52.78
ATOM	4856	O1	HOH	W	92	58.171	28.185	55.468	1.000	35.33
ATOM	4857	O1	HOH	W	93	-1.835	-17.836	29.482	1.000	43.68
ATOM	4858	O1	HOH	W	94	19.387	-17.439	48.725	1.000	53.98
ATOM	4859	O1	HOH	W	95	60.252	41.304	67.862	1.000	40.39
ATOM	4860	O1	HOH	W	96	33.297	25.666	61.866	1.000	30.40
ATOM	4861	O1	HOH	W	97	-0.856	-8.441	21.984	1.000	40.05
ATOM	4862	O1	HOH	W	98	1.309	3.127	26.649	1.000	32.55
ATOM	4863	O1	HOH	W	99	-1.694	-18.493	42.845	1.000	43.76
ATOM	4864	O1	HOH	W	100	24.060	-6.419	45.384	1.000	40.45
ATOM	4865	O1	HOH	W	101	-16.201	0.201	30.012	1.000	60.21
ATOM	4866	O1	HOH	W	102	26.465	-8.482	43.564	1.000	39.40
ATOM	4867	O1	HOH	W	103	26.382	-4.680	30.946	1.000	37.07
ATOM	4868	O1	HOH	W	104	14.152	-0.770	45.187	1.000	31.90
ATOM	4869	O1	HOH	W	105	45.353	7.442	65.377	1.000	41.13
ATOM	4870	O1	HOH	W	106	61.574	29.765	78.858	1.000	30.33
ATOM	4871	O1	HOH	W	107	7.240	13.732	33.506	1.000	51.68
ATOM	4872	O1	HOH	W	108	63.827	31.328	67.142	1.000	34.68
ATOM	4873	O1	HOH	W	109	27.765	8.197	72.253	1.000	40.60
ATOM	4874	O1	HOH	W	110	26.746	31.022	63.432	1.000	78.25
ATOM	4875	O1	HOH	W	111	5.779	12.491	31.119	1.000	40.18
ATOM	4876	O1	HOH	W	112	0.254	17.249	30.260	1.000	37.62
ATOM	4877	O1	HOH	W	113	12.595	10.239	20.359	1.000	35.26
ATOM	4878	O1	HOH	W	114	-12.231	8.847	27.346	1.000	34.71
ATOM	4879	O1	HOH	W	115	6.080	14.549	28.922	1.000	38.97
ATOM	4880	O1	HOH	W	116	42.291	33.445	57.940	1.000	22.41
ATOM	4881	O1	HOH	W	117	59.009	28.099	70.085	1.000	25.15
ATOM	4882	O1	HOH	W	118	21.222	2.455	47.444	1.000	48.38
ATOM	4883	O1	HOH	W	119	15.608	-16.455	31.001	1.000	42.95
ATOM	4884	O1	HOH	W	120	-0.125	11.690	36.476	1.000	30.48
ATOM	4885	O1	HOH	W	121	1.726	11.454	38.848	1.000	32.74
ATOM	4886	O1	HOH	W	122	28.290	-0.445	30.933	1.000	38.16
ATOM	4887	O1	HOH	W	123	6.212	-24.378	36.045	1.000	44.15

**FIGURE 100**



ATOM	4888	O1	HOH W 124	1.177	-29.065	27.544	1.000	45.02
ATOM	4889	O1	HOH W 125	56.979	34.259	60.005	1.000	48.14
ATOM	4890	O1	HOH W 126	58.730	33.237	57.099	1.000	45.63
ATOM	4891	O1	HOH W 127	15.046	11.322	20.955	1.000	40.69
ATOM	4892	O1	HOH W 128	17.468	-4.910	24.971	1.000	27.77
ATOM	4893	O1	HOH W 129	-7.587	-7.450	31.742	1.000	42.13
ATOM	4894	O1	HOH W 130	62.587	23.632	57.526	1.000	35.90
ATOM	4895	O1	HOH W 131	-1.756	3.962	17.316	1.000	54.25
ATOM	4896	O1	HOH W 132	-7.965	-8.197	36.101	1.000	44.77
ATOM	4897	O1	HOH W 133	24.522	-12.151	40.839	1.000	47.60
ATOM	4898	O1	HOH W 134	41.871	34.231	60.791	1.000	28.90
ATOM	4899	O1	HOH W 135	0.084	1.514	45.812	1.000	36.86
ATOM	4900	O1	HOH W 136	-8.408	3.637	36.615	1.000	38.14
ATOM	4901	O1	HOH W 137	40.900	41.156	64.403	1.000	36.63
ATOM	4902	O1	HOH W 138	-11.020	-17.691	22.512	1.000	75.97
ATOM	4903	O1	HOH W 139	7.850	3.732	42.421	1.000	36.40
ATOM	4904	O1	HOH W 140	26.443	-10.866	28.599	1.000	51.16
ATOM	4905	O1	HOH W 141	23.109	4.111	20.091	1.000	51.94
ATOM	4906	O1	HOH W 142	38.297	16.036	84.787	1.000	45.01
ATOM	4907	O1	HOH W 143	21.913	17.019	28.707	1.000	43.32
ATOM	4908	O1	HOH W 144	59.964	41.572	65.028	1.000	58.77
ATOM	4909	O1	HOH W 145	46.873	21.994	79.174	1.000	40.67
ATOM	4910	O1	HOH W 146	19.058	-16.861	40.797	1.000	48.41
ATOM	4911	O1	HOH W 147	50.103	11.202	73.004	1.000	41.20
ATOM	4912	O1	HOH W 148	-3.801	9.680	21.040	1.000	40.17
ATOM	4913	O1	HOH W 149	0.486	8.561	18.811	1.000	40.75
ATOM	4914	O1	HOH W 150	19.935	8.387	60.381	1.000	53.72
ATOM	4915	O1	HOH W 151	23.477	-0.731	29.783	1.000	32.64
ATOM	4916	O1	HOH W 152	43.876	43.513	55.758	1.000	69.30
ATOM	4917	O1	HOH W 153	-5.161	3.525	27.477	1.000	32.16
ATOM	4918	O1	HOH W 154	41.525	16.199	52.939	1.000	81.81
ATOM	4919	O1	HOH W 155	-4.928	-12.335	20.354	1.000	61.63
ATOM	4920	O1	HOH W 156	13.058	0.354	47.602	1.000	30.77
ATOM	4921	O1	HOH W 157	43.059	17.423	76.789	1.000	45.11
ATOM	4922	O1	HOH W 158	62.494	11.714	59.113	1.000	108.46
ATOM	4923	O1	HOH W 159	48.631	10.662	67.791	1.000	38.71
ATOM	4924	O1	HOH W 160	36.309	22.824	83.433	1.000	53.78
ATOM	4925	O1	HOH W 161	34.255	41.203	81.271	1.000	58.61
ATOM	4926	O1	HOH W 162	41.197	23.937	80.959	1.000	34.06
ATOM	4927	O1	HOH W 163	41.828	13.385	50.732	1.000	77.14
ATOM	4928	O1	HOH W 164	31.641	33.672	55.019	1.000	59.40
ATOM	4929	O1	HOH W 165	15.868	14.555	66.209	1.000	65.90
ATOM	4930	O1	HOH W 166	57.742	42.116	78.337	1.000	65.62
ATOM	4931	O1	HOH W 167	4.617	-25.082	27.972	1.000	47.28
ATOM	4932	O1	HOH W 168	2.787	17.721	23.213	1.000	98.79
ATOM	4933	O1	HOH W 169	59.715	23.680	80.391	1.000	59.77
ATOM	4934	O1	HOH W 170	37.169	14.176	35.477	1.000	57.67
ATOM	4935	O1	HOH W 171	15.841	-25.349	41.958	1.000	68.09
ATOM	4936	O1	HOH W 172	69.007	25.633	74.020	1.000	68.84
ATOM	4937	O1	HOH W 173	63.270	32.699	57.782	1.000	41.40
ATOM	4938	O1	HOH W 174	38.069	44.790	79.133	1.000	74.12
ATOM	4939	O1	HOH W 175	74.296	43.345	65.746	1.000	58.77

**FIGURE 101**

ATOM	4940	O1	HOH W 176	29.671	29.752	62.465	1.000	48.75
ATOM	4941	O1	HOH W 177	27.349	16.661	41.834	1.000	64.12
ATOM	4942	O1	HOH W 178	68.864	18.200	64.263	1.000	44.37
ATOM	4943	O1	HOH W 179	51.540	25.428	52.448	1.000	52.06
ATOM	4944	O1	HOH W 180	28.343	-0.494	74.952	1.000	90.20
ATOM	4945	O1	HOH W 181	-12.972	-6.360	31.919	1.000	61.07
ATOM	4946	O1	HOH W 182	29.627	16.979	37.935	1.000	63.71
ATOM	4947	O1	HOH W 183	30.147	-2.678	28.953	1.000	52.59
ATOM	4948	O1	HOH W 184	55.934	13.116	53.037	1.000	49.11
ATOM	4949	O1	HOH W 185	-4.863	-11.799	39.588	1.000	42.83
ATOM	4950	O1	HOH W 186	52.756	41.765	58.587	1.000	57.97
ATOM	4951	O1	HOH W 187	27.188	-2.332	27.244	1.000	43.06
ATOM	4952	O1	HOH W 188	30.473	7.380	75.791	1.000	81.10
ATOM	4953	O1	HOH W 189	-7.908	-19.633	34.839	1.000	59.42
ATOM	4954	O1	HOH W 190	28.733	14.583	42.278	1.000	54.80
ATOM	4955	O1	HOH W 191	-13.906	-5.879	34.683	1.000	54.42
ATOM	4956	O1	HOH W 192	60.646	30.561	54.430	1.000	103.36
ATOM	4957	O1	HOH W 193	35.855	14.670	80.980	1.000	52.28
ATOM	4958	O1	HOH W 194	19.267	-7.719	50.684	1.000	99.38
ATOM	4959	O1	HOH W 195	17.702	-14.597	31.579	1.000	48.72
ATOM	4960	O1	HOH W 196	25.127	1.357	21.179	1.000	86.89
ATOM	4961	O1	HOH W 197	7.136	23.308	30.331	1.000	67.50
ATOM	4962	O1	HOH W 198	66.979	28.356	73.926	1.000	73.15
ATOM	4963	O1	HOH W 199	58.649	27.550	81.422	1.000	51.44
ATOM	4964	O1	HOH W 200	26.717	16.527	75.237	1.000	49.85
ATOM	4965	O1	HOH W 201	50.540	18.935	78.454	1.000	49.28

END

**FIGURE 102**

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CRYST1	62.186	71.797	70.448	90.00	93.56	90.00		
ATOM	1	N	THR	A	20	13.220	15.647	19.635 1.00 51.11
ATOM	2	CA	THR	A	20	14.046	16.499	20.485 1.00 49.11
ATOM	3	CB	THR	A	20	13.219	17.270	21.525 1.00 56.84
ATOM	4	OG1	THR	A	20	11.822	17.025	21.318 1.00 82.00
ATOM	5	CG2	THR	A	20	13.411	18.771	21.351 1.00 62.78
ATOM	6	C	THR	A	20	15.126	15.682	21.189 1.00 47.28
ATOM	7	O	THR	A	20	14.920	14.601	21.731 1.00 36.27
ATOM	8	N	SER	A	21	16.332	16.238	21.145 1.00 41.80
ATOM	9	CA	SER	A	21	17.525	15.585	21.640 1.00 38.45
ATOM	10	CB	SER	A	21	18.027	14.556	20.623 1.00 50.01
ATOM	11	OG	SER	A	21	18.114	15.125	19.328 1.00 57.39
ATOM	12	C	SER	A	21	18.628	16.597	21.924 1.00 40.97
ATOM	13	O	SER	A	21	18.818	17.552	21.172 1.00 54.77
ATOM	14	N	CYS	A	22	19.351	16.377	23.013 1.00 38.55
ATOM	15	CA	CYS	A	22	20.465	17.251	23.365 1.00 41.82
ATOM	16	CB	CYS	A	22	20.194	17.972	24.677 1.00 49.07
ATOM	17	SG	CYS	A	22	21.184	19.448	24.992 1.00157.91
ATOM	18	C	CYS	A	22	21.737	16.416	23.433 1.00 40.34
ATOM	19	O	CYS	A	22	22.215	16.085	24.518 1.00 48.60
ATOM	20	N	PRO	A	23	22.270	16.062	22.271 1.00 32.99
ATOM	21	CA	PRO	A	23	23.464	15.210	22.261 1.00 38.72
ATOM	22	CB	PRO	A	23	23.710	14.926	20.790 1.00 42.84
ATOM	23	CG	PRO	A	23	22.474	15.348	20.073 1.00 43.60
ATOM	24	CD	PRO	A	23	21.836	16.415	20.914 1.00 38.82
ATOM	25	C	PRO	A	23	24.615	15.995	22.881 1.00 48.13
ATOM	26	O	PRO	A	23	24.711	17.211	22.701 1.00 47.03
ATOM	27	N	ILE	A	24	25.460	15.298	23.625 1.00 44.75
ATOM	28	CA	ILE	A	24	26.566	15.975	24.297 1.00 44.40
ATOM	29	CB	ILE	A	24	26.272	16.206	25.788 1.00 42.81
ATOM	30	CG1	ILE	A	24	25.075	17.122	26.057 1.00 46.37
ATOM	31	CD1	ILE	A	24	24.076	16.565	27.047 1.00 66.22
ATOM	32	CG2	ILE	A	24	27.512	16.726	26.502 1.00 39.08
ATOM	33	C	ILE	A	24	27.832	15.154	24.125 1.00 40.83
ATOM	34	O	ILE	A	24	27.907	13.977	24.460 1.00 37.86
ATOM	35	N	LYS	A	25	28.852	15.794	23.569 1.00 44.53
ATOM	36	CA	LYS	A	25	30.123	15.105	23.390 1.00 43.13
ATOM	37	CB	LYS	A	25	31.053	15.966	22.534 1.00 53.45
ATOM	38	CG	LYS	A	25	30.471	16.274	21.159 1.00 54.09
ATOM	39	CD	LYS	A	25	31.401	15.816	20.047 1.00 53.48
ATOM	40	CE	LYS	A	25	30.749	14.744	19.184 1.00 52.46
ATOM	41	NZ	LYS	A	25	31.611	13.534	19.051 1.00 56.82
ATOM	42	C	LYS	A	25	30.742	14.777	24.743 1.00 35.84
ATOM	43	O	LYS	A	25	30.676	15.549	25.699 1.00 35.11
ATOM	44	N	ILE	A	26	31.342	13.599	24.805 1.00 30.07
ATOM	45	CA	ILE	A	26	31.956	13.072	26.009 1.00 44.79
ATOM	46	CB	ILE	A	26	32.828	11.842	25.666 1.00 53.22
ATOM	47	CG1	ILE	A	26	32.077	10.710	24.967 1.00 52.52
ATOM	48	CD1	ILE	A	26	30.646	10.520	25.409 1.00 30.26
ATOM	49	CG2	ILE	A	26	33.540	11.331	26.909 1.00 64.21
ATOM	50	C	ILE	A	26	32.827	14.089	26.738 1.00 48.16
ATOM	51	O	ILE	A	26	32.683	14.275	27.948 1.00 50.00

**FIGURE 103**

ATOM	52	N	ASN	A	27	33.731	14.732	26.005	1.00	46.06
ATOM	53	CA	ASN	A	27	34.745	15.593	26.605	1.00	48.63
ATOM	54	CB	ASN	A	27	35.900	15.802	25.627	1.00	60.83
ATOM	55	CG	ASN	A	27	35.840	16.989	24.701	1.00	62.73
ATOM	56	OD1	ASN	A	27	34.812	17.621	24.451	1.00	61.11
ATOM	57	ND2	ASN	A	27	37.003	17.330	24.140	1.00	50.07
ATOM	58	C	ASN	A	27	34.158	16.914	27.075	1.00	49.04
ATOM	59	O	ASN	A	27	34.843	17.726	27.705	1.00	47.37
ATOM	60	N	GLN	A	28	32.878	17.141	26.778	1.00	46.15
ATOM	61	CA	GLN	A	28	32.271	18.381	27.266	1.00	49.97
ATOM	62	CB	GLN	A	28	31.655	19.163	26.101	1.00	56.77
ATOM	63	CG	GLN	A	28	32.595	19.346	24.918	1.00	66.10
ATOM	64	CD	GLN	A	28	32.102	20.390	23.934	1.00	71.73
ATOM	65	OE1	GLN	A	28	31.403	21.326	24.320	1.00	72.33
ATOM	66	NE2	GLN	A	28	32.453	20.244	22.661	1.00	76.09
ATOM	67	C	GLN	A	28	31.227	18.109	28.337	1.00	40.82
ATOM	68	O	GLN	A	28	30.634	19.039	28.895	1.00	38.64
ATOM	69	N	PHE	A	29	30.965	16.838	28.647	1.00	40.55
ATOM	70	CA	PHE	A	29	29.821	16.576	29.522	1.00	33.60
ATOM	71	CB	PHE	A	29	29.591	15.064	29.660	1.00	39.21
ATOM	72	CG	PHE	A	29	28.380	14.777	30.544	1.00	32.38
ATOM	73	CD1	PHE	A	29	27.109	14.865	30.005	1.00	33.31
ATOM	74	CE1	PHE	A	29	25.985	14.624	30.772	1.00	33.30
ATOM	75	CZ	PHE	A	29	26.136	14.282	32.103	1.00	38.62
ATOM	76	CE2	PHE	A	29	27.402	14.192	32.648	1.00	37.08
ATOM	77	CD2	PHE	A	29	28.520	14.426	31.874	1.00	28.51
ATOM	78	C	PHE	A	29	29.981	17.210	30.898	1.00	25.63
ATOM	79	O	PHE	A	29	29.074	17.856	31.430	1.00	40.09
ATOM	80	N	GLU	A	30	31.161	17.013	31.469	1.00	36.23
ATOM	81	CA	GLU	A	30	31.510	17.549	32.778	1.00	43.91
ATOM	82	CB	GLU	A	30	33.004	17.328	33.045	1.00	55.32
ATOM	83	CG	GLU	A	30	33.738	16.650	31.903	1.00	66.32
ATOM	84	CD	GLU	A	30	33.492	15.158	31.798	1.00	75.29
ATOM	85	OE1	GLU	A	30	33.517	14.458	32.833	1.00	81.66
ATOM	86	OE2	GLU	A	30	33.270	14.685	30.659	1.00	78.35
ATOM	87	C	GLU	A	30	31.153	19.024	32.895	1.00	33.72
ATOM	88	O	GLU	A	30	30.421	19.428	33.800	1.00	34.69
ATOM	89	N	GLY	A	31	31.659	19.845	31.973	1.00	36.69
ATOM	90	CA	GLY	A	31	31.407	21.279	32.045	1.00	29.29
ATOM	91	C	GLY	A	31	29.939	21.581	31.824	1.00	40.96
ATOM	92	O	GLY	A	31	29.333	22.407	32.512	1.00	37.93
ATOM	93	N	HIS	A	32	29.401	20.867	30.835	1.00	51.96
ATOM	94	CA	HIS	A	32	27.980	20.958	30.502	1.00	44.37
ATOM	95	CB	HIS	A	32	27.638	19.919	29.443	1.00	58.95
ATOM	96	CG	HIS	A	32	26.265	19.339	29.512	1.00	69.53
ATOM	97	ND1	HIS	A	32	25.190	19.878	28.841	1.00	71.46
ATOM	98	CE1	HIS	A	32	24.109	19.159	29.083	1.00	73.05
ATOM	99	NE2	HIS	A	32	24.441	18.167	29.890	1.00	73.89
ATOM	100	CD2	HIS	A	32	25.783	18.259	30.170	1.00	73.95
ATOM	101	C	HIS	A	32	27.176	20.784	31.777	1.00	40.30
ATOM	102	O	HIS	A	32	26.380	21.635	32.177	1.00	35.23
ATOM	103	N	PHE	A	33	27.414	19.655	32.448	1.00	37.93

**FIGURE 104**

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ATOM	104	CA	PHE	A	33	26.660	19.416	33.684	1.00	35.86
ATOM	105	CB	PHE	A	33	27.026	18.033	34.233	1.00	30.87
ATOM	106	CG	PHE	A	33	26.146	17.593	35.390	1.00	31.86
ATOM	107	CD1	PHE	A	33	24.793	17.870	35.387	1.00	30.87
ATOM	108	CE1	PHE	A	33	23.998	17.487	36.449	1.00	39.07
ATOM	109	CZ	PHE	A	33	24.556	16.815	37.521	1.00	40.71
ATOM	110	CE2	PHE	A	33	25.911	16.528	37.534	1.00	33.73
ATOM	111	CD2	PHE	A	33	26.694	16.911	36.464	1.00	32.41
ATOM	112	C	PHE	A	33	26.888	20.531	34.694	1.00	33.77
ATOM	113	O	PHE	A	33	25.952	20.961	35.381	1.00	36.95
ATOM	114	N	MET	A	34	28.109	21.054	34.812	1.00	40.28
ATOM	115	CA	MET	A	34	28.365	22.163	35.733	1.00	36.53
ATOM	116	CB	MET	A	34	29.840	22.550	35.715	1.00	37.70
ATOM	117	CG	MET	A	34	30.725	21.619	36.533	1.00	44.64
ATOM	118	SD	MET	A	34	32.467	21.981	36.237	1.00	57.03
ATOM	119	CE	MET	A	34	32.639	23.515	37.150	1.00	38.10
ATOM	120	C	MET	A	34	27.538	23.393	35.382	1.00	32.51
ATOM	121	O	MET	A	34	26.955	24.065	36.235	1.00	52.72
ATOM	122	N	LYS	A	35	27.508	23.672	34.081	1.00	35.94
ATOM	123	CA	LYS	A	35	26.695	24.776	33.583	1.00	42.22
ATOM	124	CB	LYS	A	35	26.769	24.818	32.059	1.00	53.72
ATOM	125	CG	LYS	A	35	27.490	26.026	31.488	1.00	64.13
ATOM	126	CD	LYS	A	35	26.830	26.522	30.211	1.00	73.45
ATOM	127	CE	LYS	A	35	25.799	27.603	30.481	1.00	79.66
ATOM	128	NZ	LYS	A	35	25.397	28.334	29.244	1.00	65.59
ATOM	129	C	LYS	A	35	25.261	24.606	34.072	1.00	42.89
ATOM	130	O	LYS	A	35	24.679	25.467	34.733	1.00	40.73
ATOM	131	N	LEU	A	36	24.707	23.441	33.733	1.00	35.38
ATOM	132	CA	LEU	A	36	23.356	23.091	34.131	1.00	26.66
ATOM	133	CB	LEU	A	36	23.027	21.631	33.793	1.00	34.71
ATOM	134	CG	LEU	A	36	22.556	21.329	32.373	1.00	35.84
ATOM	135	CD1	LEU	A	36	23.700	21.485	31.388	1.00	40.98
ATOM	136	CD2	LEU	A	36	21.974	19.922	32.277	1.00	32.82
ATOM	137	C	LEU	A	36	23.172	23.283	35.629	1.00	24.20
ATOM	138	O	LEU	A	36	22.123	23.748	36.062	1.00	28.20
ATOM	139	N	GLN	A	37	24.207	22.901	36.378	1.00	25.36
ATOM	140	CA	GLN	A	37	24.143	22.963	37.831	1.00	31.18
ATOM	141	CB	GLN	A	37	25.189	22.007	38.420	1.00	38.07
ATOM	142	CG	GLN	A	37	24.588	20.611	38.573	1.00	46.59
ATOM	143	CD	GLN	A	37	25.546	19.648	39.244	1.00	51.11
ATOM	144	OE1	GLN	A	37	26.637	19.410	38.728	1.00	44.66
ATOM	145	NE2	GLN	A	37	25.114	19.115	40.378	1.00	36.68
ATOM	146	C	GLN	A	37	24.337	24.373	38.379	1.00	40.44
ATOM	147	O	GLN	A	37	23.814	24.666	39.455	1.00	35.38
ATOM	148	N	ALA	A	38	25.050	25.199	37.630	1.00	45.31
ATOM	149	CA	ALA	A	38	25.238	26.608	37.933	1.00	58.11
ATOM	150	CB	ALA	A	38	25.738	27.359	36.705	1.00	66.03
ATOM	151	C	ALA	A	38	23.953	27.264	38.431	1.00	66.10
ATOM	152	O	ALA	A	38	22.853	26.812	38.114	1.00	78.27
ATOM	153	N	ASP	A	39	24.121	28.331	39.199	1.00	68.10
ATOM	154	CA	ASP	A	39	23.041	29.104	39.794	1.00	71.28
ATOM	155	CB	ASP	A	39	22.423	30.060	38.774	1.00	77.06

**FIGURE 105**

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ATOM	156	CG	ASP	A	39	23.365	30.405	37.638	1.00	86.83
ATOM	157	OD1	ASP	A	39	23.544	29.551	36.742	1.00	105.52
ATOM	158	OD2	ASP	A	39	23.932	31.516	37.639	1.00	105.04
ATOM	159	C	ASP	A	39	21.969	28.188	40.383	1.00	69.59
ATOM	160	O	ASP	A	39	20.770	28.436	40.271	1.00	51.64
ATOM	161	N	SER	A	40	22.436	27.116	41.014	1.00	72.47
ATOM	162	CA	SER	A	40	21.569	26.129	41.639	1.00	73.99
ATOM	163	CB	SER	A	40	20.695	26.792	42.708	1.00	78.30
ATOM	164	OG	SER	A	40	20.340	25.862	43.718	1.00	96.66
ATOM	165	C	SER	A	40	20.698	25.414	40.612	1.00	69.44
ATOM	166	O	SER	A	40	19.473	25.380	40.738	1.00	68.61
ATOM	167	N	ASN	A	41	21.324	24.836	39.588	1.00	67.73
ATOM	168	CA	ASN	A	41	20.564	24.038	38.628	1.00	64.81
ATOM	169	CB	ASN	A	41	19.846	22.901	39.367	1.00	61.79
ATOM	170	CG	ASN	A	41	20.795	21.929	40.031	1.00	61.73
ATOM	171	OD1	ASN	A	41	22.000	21.958	39.789	1.00	69.43
ATOM	172	ND2	ASN	A	41	20.260	21.055	40.876	1.00	77.55
ATOM	173	C	ASN	A	41	19.542	24.870	37.871	1.00	61.80
ATOM	174	O	ASN	A	41	18.448	24.397	37.545	1.00	46.20
ATOM	175	N	TYR	A	42	19.871	26.131	37.586	1.00	55.50
ATOM	176	CA	TYR	A	42	18.879	26.965	36.907	1.00	53.77
ATOM	177	CB	TYR	A	42	19.293	28.437	36.963	1.00	58.34
ATOM	178	CG	TYR	A	42	18.328	29.359	36.248	1.00	57.25
ATOM	179	CD1	TYR	A	42	17.106	29.704	36.812	1.00	53.13
ATOM	180	CE1	TYR	A	42	16.237	30.547	36.143	1.00	55.57
ATOM	181	CZ	TYR	A	42	16.586	31.048	34.908	1.00	57.51
ATOM	182	OH	TYR	A	42	15.728	31.888	34.236	1.00	77.05
ATOM	183	CE2	TYR	A	42	17.792	30.720	34.327	1.00	53.44
ATOM	184	CD2	TYR	A	42	18.652	29.878	35.001	1.00	54.42
ATOM	185	C	TYR	A	42	18.676	26.523	35.463	1.00	46.65
ATOM	186	O	TYR	A	42	17.565	26.523	34.925	1.00	42.26
ATOM	187	N	LEU	A	43	19.772	26.135	34.813	1.00	33.69
ATOM	188	CA	LEU	A	43	19.638	25.715	33.419	1.00	35.76
ATOM	189	CB	LEU	A	43	20.980	25.835	32.706	1.00	39.54
ATOM	190	CG	LEU	A	43	21.238	27.199	32.047	1.00	40.56
ATOM	191	CD1	LEU	A	43	20.408	28.282	32.714	1.00	40.30
ATOM	192	CD2	LEU	A	43	22.709	27.555	32.093	1.00	29.81
ATOM	193	C	LEU	A	43	19.077	24.300	33.348	1.00	48.21
ATOM	194	O	LEU	A	43	18.421	23.937	32.371	1.00	40.48
ATOM	195	N	LEU	A	44	19.326	23.509	34.394	1.00	46.35
ATOM	196	CA	LEU	A	44	18.762	22.160	34.438	1.00	44.23
ATOM	197	CB	LEU	A	44	19.440	21.300	35.503	1.00	45.17
ATOM	198	CG	LEU	A	44	19.102	19.805	35.499	1.00	45.62
ATOM	199	CD1	LEU	A	44	20.365	18.965	35.586	1.00	31.11
ATOM	200	CD2	LEU	A	44	18.148	19.475	36.638	1.00	39.34
ATOM	201	C	LEU	A	44	17.257	22.238	34.682	1.00	40.48
ATOM	202	O	LEU	A	44	16.490	21.546	34.017	1.00	46.20
ATOM	203	N	SER	A	45	16.833	23.079	35.624	1.00	37.28
ATOM	204	CA	SER	A	45	15.412	23.227	35.909	1.00	41.63
ATOM	205	CB	SER	A	45	15.183	24.298	36.971	1.00	49.13
ATOM	206	OG	SER	A	45	15.258	23.742	38.273	1.00	45.34
ATOM	207	C	SER	A	45	14.644	23.557	34.635	1.00	47.28

**FIGURE 106**

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ATOM	208	O	SER	A	45	13.532	23.071	34.420	1.00	56.54
ATOM	209	N	LYS	A	46	15.239	24.377	33.775	1.00	48.99
ATOM	210	CA	LYS	A	46	14.588	24.708	32.508	1.00	53.30
ATOM	211	CB	LYS	A	46	15.228	25.954	31.890	1.00	59.16
ATOM	212	CG	LYS	A	46	15.006	27.210	32.725	1.00	63.86
ATOM	213	CD	LYS	A	46	15.835	28.379	32.220	1.00	64.48
ATOM	214	CE	LYS	A	46	15.039	29.675	32.252	1.00	64.98
ATOM	215	NZ	LYS	A	46	15.675	30.745	31.433	1.00	56.04
ATOM	216	C	LYS	A	46	14.622	23.533	31.535	1.00	47.85
ATOM	217	O	LYS	A	46	13.603	23.266	30.890	1.00	55.12
ATOM	218	N	GLU	A	47	15.746	22.834	31.420	1.00	36.87
ATOM	219	CA	GLU	A	47	15.840	21.669	30.546	1.00	45.16
ATOM	220	CB	GLU	A	47	17.247	21.060	30.588	1.00	47.65
ATOM	221	CG	GLU	A	47	17.495	20.034	29.498	1.00	48.46
ATOM	222	CD	GLU	A	47	18.919	19.534	29.410	1.00	55.44
ATOM	223	OE1	GLU	A	47	19.665	19.977	28.510	1.00	68.33
ATOM	224	OE2	GLU	A	47	19.316	18.675	30.229	1.00	55.44
ATOM	225	C	GLU	A	47	14.799	20.615	30.918	1.00	39.97
ATOM	226	O	GLU	A	47	14.010	20.178	30.080	1.00	39.03
ATOM	227	N	TYR	A	48	14.770	20.191	32.177	1.00	35.97
ATOM	228	CA	TYR	A	48	13.770	19.221	32.614	1.00	40.19
ATOM	229	CB	TYR	A	48	13.910	18.925	34.105	1.00	35.08
ATOM	230	CG	TYR	A	48	13.004	17.856	34.671	1.00	32.74
ATOM	231	CD1	TYR	A	48	13.165	16.505	34.361	1.00	28.30
ATOM	232	CE1	TYR	A	48	12.316	15.553	34.903	1.00	22.32
ATOM	233	CZ	TYR	A	48	11.301	15.922	35.753	1.00	30.86
ATOM	234	OH	TYR	A	48	10.450	14.983	36.292	1.00	30.54
ATOM	235	CE2	TYR	A	48	11.115	17.253	36.080	1.00	26.20
ATOM	236	CD2	TYR	A	48	11.970	18.194	35.534	1.00	28.57
ATOM	237	C	TYR	A	48	12.369	19.729	32.302	1.00	49.53
ATOM	238	O	TYR	A	48	11.526	19.006	31.769	1.00	51.41
ATOM	239	N	GLU	A	49	12.105	20.994	32.637	1.00	46.93
ATOM	240	CA	GLU	A	49	10.772	21.536	32.378	1.00	42.89
ATOM	241	CB	GLU	A	49	10.655	22.963	32.912	1.00	52.01
ATOM	242	CG	GLU	A	49	9.269	23.330	33.420	1.00	65.78
ATOM	243	CD	GLU	A	49	8.788	22.347	34.472	1.00	79.04
ATOM	244	OE1	GLU	A	49	9.560	22.068	35.413	1.00	96.40
ATOM	245	OE2	GLU	A	49	7.646	21.856	34.354	1.00	91.96
ATOM	246	C	GLU	A	49	10.462	21.493	30.883	1.00	29.38
ATOM	247	O	GLU	A	49	9.309	21.423	30.462	1.00	38.63
ATOM	248	N	GLU	A	50	11.510	21.544	30.075	1.00	34.87
ATOM	249	CA	GLU	A	50	11.357	21.477	28.626	1.00	46.84
ATOM	250	CB	GLU	A	50	12.745	21.550	27.998	1.00	52.28
ATOM	251	CG	GLU	A	50	12.782	21.554	26.483	1.00	62.44
ATOM	252	CD	GLU	A	50	13.712	22.655	25.996	1.00	72.44
ATOM	253	OE1	GLU	A	50	14.373	22.454	24.958	1.00	92.62
ATOM	254	OE2	GLU	A	50	13.753	23.697	26.686	1.00	72.72
ATOM	255	C	GLU	A	50	10.644	20.199	28.208	1.00	52.30
ATOM	256	O	GLU	A	50	9.964	20.114	27.186	1.00	54.37
ATOM	257	N	LEU	A	51	10.816	19.164	29.028	1.00	44.46
ATOM	258	CA	LEU	A	51	10.319	17.841	28.691	1.00	34.94
ATOM	259	CB	LEU	A	51	11.233	16.772	29.304	1.00	24.94

**FIGURE 107**

ATOM	260	CG	LEU	A	51	12.654	16.734	28.754	1.00	21.39
ATOM	261	CD1	LEU	A	51	13.621	16.312	29.850	1.00	34.46
ATOM	262	CD2	LEU	A	51	12.731	15.811	27.550	1.00	25.27
ATOM	263	C	LEU	A	51	8.912	17.588	29.202	1.00	42.88
ATOM	264	O	LEU	A	51	8.350	16.541	28.883	1.00	29.33
ATOM	265	N	LYS	A	52	8.399	18.530	29.983	1.00	44.99
ATOM	266	CA	LYS	A	52	7.115	18.337	30.643	1.00	49.66
ATOM	267	CB	LYS	A	52	6.789	19.557	31.513	1.00	57.53
ATOM	268	CG	LYS	A	52	6.095	20.683	30.765	1.00	69.23
ATOM	269	CD	LYS	A	52	6.543	22.048	31.263	1.00	75.40
ATOM	270	CE	LYS	A	52	5.563	23.135	30.850	1.00	81.49
ATOM	271	NZ	LYS	A	52	4.161	22.796	31.229	1.00	87.53
ATOM	272	C	LYS	A	52	5.973	18.083	29.671	1.00	38.67
ATOM	273	O	LYS	A	52	5.052	17.334	29.988	1.00	35.81
ATOM	274	N	ASP	A	53	5.984	18.692	28.489	1.00	36.11
ATOM	275	CA	ASP	A	53	4.829	18.567	27.605	1.00	40.07
ATOM	276	CB	ASP	A	53	4.529	19.928	26.954	1.00	49.22
ATOM	277	CG	ASP	A	53	4.334	21.018	27.995	1.00	54.49
ATOM	278	OD1	ASP	A	53	5.153	21.961	28.039	1.00	73.06
ATOM	279	OD2	ASP	A	53	3.367	20.942	28.782	1.00	35.35
ATOM	280	C	ASP	A	53	5.012	17.503	26.537	1.00	32.08
ATOM	281	O	ASP	A	53	4.126	17.303	25.702	1.00	27.30
ATOM	282	N	VAL	A	54	6.138	16.789	26.531	1.00	23.82
ATOM	283	CA	VAL	A	54	6.275	15.745	25.515	1.00	26.43
ATOM	284	CB	VAL	A	54	7.644	15.063	25.611	1.00	23.01
ATOM	285	CG1	VAL	A	54	7.804	13.986	24.545	1.00	19.26
ATOM	286	CG2	VAL	A	54	8.762	16.096	25.487	1.00	34.53
ATOM	287	C	VAL	A	54	5.166	14.704	25.659	1.00	26.62
ATOM	288	O	VAL	A	54	4.905	14.234	26.761	1.00	17.16
ATOM	289	N	GLY	A	55	4.527	14.349	24.554	1.00	21.88
ATOM	290	CA	GLY	A	55	3.558	13.282	24.475	1.00	23.39
ATOM	291	C	GLY	A	55	2.195	13.617	25.024	1.00	30.22
ATOM	292	O	GLY	A	55	1.314	12.758	25.104	1.00	23.51
ATOM	293	N	ARG	A	56	1.989	14.875	25.405	1.00	31.50
ATOM	294	CA	ARG	A	56	0.782	15.271	26.119	1.00	28.44
ATOM	295	CB	ARG	A	56	0.984	16.662	26.743	1.00	36.73
ATOM	296	CG	ARG	A	56	1.082	17.789	25.719	1.00	31.99
ATOM	297	CD	ARG	A	56	1.004	19.156	26.390	1.00	37.18
ATOM	298	NE	ARG	A	56	-0.281	19.323	27.056	1.00	43.75
ATOM	299	CZ	ARG	A	56	-0.556	19.932	28.193	1.00	45.89
ATOM	300	NH1	ARG	A	56	0.380	20.516	28.923	1.00	38.18
ATOM	301	NH2	ARG	A	56	-1.817	19.962	28.623	1.00	39.43
ATOM	302	C	ARG	A	56	-0.450	15.279	25.227	1.00	29.67
ATOM	303	O	ARG	A	56	-1.567	15.445	25.732	1.00	27.62
ATOM	304	N	ASN	A	57	-0.237	15.110	23.922	1.00	26.65
ATOM	305	CA	ASN	A	57	-1.345	15.090	22.982	1.00	27.28
ATOM	306	CB	ASN	A	57	-0.843	15.400	21.560	1.00	38.20
ATOM	307	CG	ASN	A	57	0.466	14.695	21.254	1.00	54.73
ATOM	308	OD1	ASN	A	57	1.420	14.764	22.038	1.00	55.09
ATOM	309	ND2	ASN	A	57	0.530	14.011	20.113	1.00	53.28
ATOM	310	C	ASN	A	57	-2.063	13.752	22.942	1.00	24.18
ATOM	311	O	ASN	A	57	-3.083	13.668	22.252	1.00	23.88

**FIGURE 108**



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ATOM	312	N	GLN	A	58	-1.579	12.719	23.623	1.00	27.84
ATOM	313	CA	GLN	A	58	-2.119	11.366	23.492	1.00	20.86
ATOM	314	CB	GLN	A	58	-0.963	10.339	23.556	1.00	16.18
ATOM	315	CG	GLN	A	58	-0.004	10.576	22.386	1.00	19.18
ATOM	316	CD	GLN	A	58	1.282	9.797	22.440	1.00	17.89
ATOM	317	OE1	GLN	A	58	1.430	8.818	21.702	1.00	27.40
ATOM	318	NE2	GLN	A	58	2.226	10.196	23.293	1.00	22.07
ATOM	319	C	GLN	A	58	-3.169	11.060	24.540	1.00	24.60
ATOM	320	O	GLN	A	58	-3.146	11.517	25.685	1.00	28.29
ATOM	321	N	SER	A	59	-4.147	10.253	24.129	1.00	19.50
ATOM	322	CA	SER	A	59	-5.255	9.909	25.012	1.00	17.23
ATOM	323	CB	SER	A	59	-6.538	9.850	24.170	1.00	25.69
ATOM	324	OG	SER	A	59	-6.970	11.173	23.891	1.00	42.05
ATOM	325	C	SER	A	59	-5.039	8.570	25.710	1.00	19.80
ATOM	326	O	SER	A	59	-4.224	7.784	25.210	1.00	16.72
ATOM	327	N	CYS	A	60	-5.766	8.346	26.789	1.00	18.16
ATOM	328	CA	CYS	A	60	-5.784	7.104	27.553	1.00	24.60
ATOM	329	CB	CYS	A	60	-5.166	7.309	28.946	1.00	22.29
ATOM	330	SG	CYS	A	60	-3.478	7.963	28.894	1.00	32.87
ATOM	331	C	CYS	A	60	-7.200	6.568	27.701	1.00	24.69
ATOM	332	O	CYS	A	60	-7.633	6.163	28.783	1.00	15.41
ATOM	333	N	ASP	A	61	-7.989	6.554	26.627	1.00	21.29
ATOM	334	CA	ASP	A	61	-9.399	6.222	26.803	1.00	17.62
ATOM	335	CB	ASP	A	61	-10.193	6.519	25.524	1.00	24.76
ATOM	336	CG	ASP	A	61	-10.158	7.992	25.163	1.00	30.04
ATOM	337	OD1	ASP	A	61	-9.946	8.844	26.050	1.00	27.96
ATOM	338	OD2	ASP	A	61	-10.334	8.286	23.966	1.00	30.86
ATOM	339	C	ASP	A	61	-9.618	4.764	27.165	1.00	22.87
ATOM	340	O	ASP	A	61	-10.577	4.424	27.849	1.00	23.80
ATOM	341	N	ILE	A	62	-8.760	3.857	26.693	1.00	17.20
ATOM	342	CA	ILE	A	62	-9.073	2.454	27.018	1.00	17.76
ATOM	343	CB	ILE	A	62	-8.198	1.491	26.203	1.00	19.59
ATOM	344	CG1	ILE	A	62	-8.434	1.614	24.694	1.00	30.45
ATOM	345	CD1	ILE	A	62	-9.906	1.542	24.325	1.00	29.59
ATOM	346	CG2	ILE	A	62	-8.389	0.061	26.685	1.00	19.52
ATOM	347	C	ILE	A	62	-8.891	2.209	28.509	1.00	24.81
ATOM	348	O	ILE	A	62	-9.671	1.523	29.170	1.00	20.96
ATOM	349	N	ALA	A	63	-7.831	2.828	29.030	1.00	18.90
ATOM	350	CA	ALA	A	63	-7.515	2.680	30.442	1.00	17.49
ATOM	351	CB	ALA	A	63	-6.214	3.420	30.729	1.00	14.17
ATOM	352	C	ALA	A	63	-8.646	3.193	31.321	1.00	22.60
ATOM	353	O	ALA	A	63	-8.776	2.756	32.467	1.00	21.69
ATOM	354	N	LEU	A	64	-9.433	4.106	30.768	1.00	22.09
ATOM	355	CA	LEU	A	64	-10.531	4.780	31.447	1.00	24.05
ATOM	356	CB	LEU	A	64	-10.635	6.212	30.898	1.00	20.03
ATOM	357	CG	LEU	A	64	-9.562	7.184	31.388	1.00	17.09
ATOM	358	CD1	LEU	A	64	-9.621	8.500	30.633	1.00	23.40
ATOM	359	CD2	LEU	A	64	-9.722	7.431	32.885	1.00	18.46
ATOM	360	C	LEU	A	64	-11.867	4.072	31.310	1.00	28.67
ATOM	361	O	LEU	A	64	-12.878	4.468	31.898	1.00	24.74
ATOM	362	N	LEU	A	65	-11.959	2.988	30.544	1.00	23.30
ATOM	363	CA	LEU	A	65	-13.262	2.317	30.495	1.00	26.61

**FIGURE 109**

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Three Dimensional Coordinates of HPTPbeta

ATOM	364	CB	LEU	A	65	-13.254	1.209	29.436	1.00	27.54
ATOM	365	CG	LEU	A	65	-12.864	1.722	28.042	1.00	27.54
ATOM	366	CD1	LEU	A	65	-12.668	0.573	27.069	1.00	25.94
ATOM	367	CD2	LEU	A	65	-13.911	2.707	27.542	1.00	31.37
ATOM	368	C	LEU	A	65	-13.622	1.772	31.869	1.00	24.88
ATOM	369	O	LEU	A	65	-12.743	1.361	32.617	1.00	27.17
ATOM	370	N	PRO	A	66	-14.907	1.798	32.204	1.00	28.42
ATOM	371	CA	PRO	A	66	-15.378	1.350	33.511	1.00	32.94
ATOM	372	CB	PRO	A	66	-16.909	1.316	33.342	1.00	34.08
ATOM	373	CG	PRO	A	66	-17.188	2.301	32.262	1.00	39.92
ATOM	374	CD	PRO	A	66	-16.002	2.281	31.339	1.00	35.79
ATOM	375	C	PRO	A	66	-14.879	-0.038	33.884	1.00	25.20
ATOM	376	O	PRO	A	66	-14.577	-0.329	35.039	1.00	30.25
ATOM	377	N	GLU	A	67	-14.784	-0.948	32.916	1.00	26.85
ATOM	378	CA	GLU	A	67	-14.418	-2.299	33.346	1.00	35.73
ATOM	379	CB	GLU	A	67	-14.879	-3.321	32.308	1.00	39.08
ATOM	380	CG	GLU	A	67	-15.067	-2.754	30.914	1.00	48.88
ATOM	381	CD	GLU	A	67	-14.264	-3.501	29.864	1.00	57.56
ATOM	382	OE1	GLU	A	67	-14.251	-4.752	29.884	1.00	77.10
ATOM	383	OE2	GLU	A	67	-13.642	-2.832	29.012	1.00	41.80
ATOM	384	C	GLU	A	67	-12.923	-2.398	33.622	1.00	36.25
ATOM	385	O	GLU	A	67	-12.447	-3.441	34.078	1.00	32.32
ATOM	386	N	ASN	A	68	-12.167	-1.333	33.359	1.00	31.47
ATOM	387	CA	ASN	A	68	-10.724	-1.380	33.588	1.00	21.87
ATOM	388	CB	ASN	A	68	-9.950	-0.794	32.395	1.00	22.35
ATOM	389	CG	ASN	A	68	-10.008	-1.714	31.195	1.00	19.79
ATOM	390	OD1	ASN	A	68	-10.127	-2.930	31.350	1.00	23.52
ATOM	391	ND2	ASN	A	68	-9.927	-1.147	29.997	1.00	19.33
ATOM	392	C	ASN	A	68	-10.329	-0.618	34.841	1.00	20.30
ATOM	393	O	ASN	A	68	-9.154	-0.604	35.215	1.00	22.70
ATOM	394	N	ARG	A	69	-11.286	0.026	35.508	1.00	26.70
ATOM	395	CA	ARG	A	69	-10.894	0.889	36.623	1.00	33.64
ATOM	396	CB	ARG	A	69	-12.116	1.607	37.211	1.00	44.80
ATOM	397	CG	ARG	A	69	-11.775	2.959	37.824	1.00	54.18
ATOM	398	CD	ARG	A	69	-12.982	3.581	38.508	1.00	63.01
ATOM	399	NE	ARG	A	69	-12.717	3.903	39.904	1.00	71.32
ATOM	400	CZ	ARG	A	69	-13.573	3.781	40.910	1.00	77.50
ATOM	401	NH1	ARG	A	69	-14.801	3.330	40.694	1.00	86.91
ATOM	402	NH2	ARG	A	69	-13.203	4.108	42.144	1.00	73.55
ATOM	403	C	ARG	A	69	-10.153	0.129	37.715	1.00	29.65
ATOM	404	O	ARG	A	69	-9.113	0.604	38.189	1.00	40.10
ATOM	405	N	GLY	A	70	-10.644	-1.040	38.113	1.00	23.99
ATOM	406	CA	GLY	A	70	-9.961	-1.818	39.143	1.00	19.86
ATOM	407	C	GLY	A	70	-8.590	-2.288	38.689	1.00	24.39
ATOM	408	O	GLY	A	70	-7.784	-2.734	39.521	1.00	22.56
ATOM	409	N	LYS	A	71	-8.301	-2.205	37.379	1.00	19.98
ATOM	410	CA	LYS	A	71	-7.003	-2.702	36.908	1.00	15.60
ATOM	411	CB	LYS	A	71	-7.123	-3.252	35.480	1.00	18.68
ATOM	412	CG	LYS	A	71	-8.200	-4.318	35.326	1.00	15.28
ATOM	413	CD	LYS	A	71	-8.403	-4.675	33.855	1.00	15.32
ATOM	414	CE	LYS	A	71	-9.713	-5.448	33.703	1.00	27.04
ATOM	415	NZ	LYS	A	71	-10.141	-5.554	32.281	1.00	31.96

**FIGURE 110**

ATOM	416	C	LYS	A	71	-5.890	-1.672	36.944	1.00	14.54
ATOM	417	O	LYS	A	71	-4.752	-1.993	36.578	1.00	17.52
ATOM	418	N	ASN	A	72	-6.149	-0.439	37.371	1.00	11.96
ATOM	419	CA	ASN	A	72	-5.101	0.568	37.479	1.00	11.74
ATOM	420	CB	ASN	A	72	-5.545	1.876	36.813	1.00	14.82
ATOM	421	CG	ASN	A	72	-5.837	1.654	35.339	1.00	23.46
ATOM	422	OD1	ASN	A	72	-5.007	1.128	34.599	1.00	16.09
ATOM	423	ND2	ASN	A	72	-7.025	2.057	34.903	1.00	21.08
ATOM	424	C	ASN	A	72	-4.753	0.835	38.937	1.00	16.08
ATOM	425	O	ASN	A	72	-5.647	1.079	39.741	1.00	18.28
ATOM	426	N	ARG	A	73	-3.471	0.788	39.258	1.00	12.51
ATOM	427	CA	ARG	A	73	-3.013	1.010	40.621	1.00	20.92
ATOM	428	CB	ARG	A	73	-1.525	0.666	40.738	1.00	13.10
ATOM	429	CG	ARG	A	73	-0.989	0.829	42.148	1.00	9.31
ATOM	430	CD	ARG	A	73	0.454	0.359	42.272	1.00	11.98
ATOM	431	NE	ARG	A	73	0.510	-1.117	42.294	1.00	9.41
ATOM	432	CZ	ARG	A	73	0.265	-1.768	43.428	1.00	17.50
ATOM	433	NH1	ARG	A	73	-0.024	-1.096	44.549	1.00	14.11
ATOM	434	NH2	ARG	A	73	0.330	-3.094	43.391	1.00	16.87
ATOM	435	C	ARG	A	73	-3.255	2.460	41.041	1.00	25.16
ATOM	436	O	ARG	A	73	-3.658	2.737	42.170	1.00	14.89
ATOM	437	N	TYR	A	74	-2.991	3.373	40.114	1.00	17.87
ATOM	438	CA	TYR	A	74	-3.209	4.806	40.336	1.00	15.26
ATOM	439	CB	TYR	A	74	-1.887	5.539	40.348	1.00	18.93
ATOM	440	CG	TYR	A	74	-0.898	5.054	41.388	1.00	19.16
ATOM	441	CD1	TYR	A	74	-1.081	5.313	42.735	1.00	22.07
ATOM	442	CE1	TYR	A	74	-0.174	4.871	43.684	1.00	17.71
ATOM	443	CZ	TYR	A	74	0.932	4.160	43.289	1.00	16.94
ATOM	444	OH	TYR	A	74	1.851	3.713	44.213	1.00	16.65
ATOM	445	CE2	TYR	A	74	1.139	3.891	41.947	1.00	20.51
ATOM	446	CD2	TYR	A	74	0.225	4.337	41.009	1.00	14.89
ATOM	447	C	TYR	A	74	-4.150	5.322	39.263	1.00	23.96
ATOM	448	O	TYR	A	74	-3.994	5.065	38.065	1.00	19.22
ATOM	449	N	ASN	A	75	-5.202	6.053	39.641	1.00	18.99
ATOM	450	CA	ASN	A	75	-6.220	6.288	38.610	1.00	23.42
ATOM	451	CB	ASN	A	75	-7.557	6.585	39.296	1.00	34.45
ATOM	452	CG	ASN	A	75	-8.137	5.350	39.975	1.00	51.03
ATOM	453	OD1	ASN	A	75	-8.673	5.414	41.085	1.00	50.00
ATOM	454	ND2	ASN	A	75	-8.051	4.180	39.342	1.00	38.85
ATOM	455	C	ASN	A	75	-5.736	7.353	37.640	1.00	18.82
ATOM	456	O	ASN	A	75	-6.317	7.585	36.580	1.00	20.63
ATOM	457	N	ASN	A	76	-4.615	7.991	37.977	1.00	16.28
ATOM	458	CA	ASN	A	76	-4.105	9.045	37.110	1.00	19.45
ATOM	459	CB	ASN	A	76	-3.997	10.339	37.926	1.00	22.45
ATOM	460	CG	ASN	A	76	-2.980	10.295	39.044	1.00	33.59
ATOM	461	OD1	ASN	A	76	-2.679	9.257	39.636	1.00	26.17
ATOM	462	ND2	ASN	A	76	-2.431	11.474	39.344	1.00	29.60
ATOM	463	C	ASN	A	76	-2.781	8.692	36.465	1.00	17.17
ATOM	464	O	ASN	A	76	-2.066	9.532	35.917	1.00	17.91
ATOM	465	N	ILE	A	77	-2.389	7.423	36.475	1.00	20.00
ATOM	466	CA	ILE	A	77	-1.171	6.992	35.791	1.00	14.81
ATOM	467	CB	ILE	A	77	-0.049	6.504	36.702	1.00	11.59

**FIGURE 111**

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ATOM	468	CG1	ILE	A	77	0.336	7.468	37.832	1.00	17.04
ATOM	469	CD1	ILE	A	77	0.986	8.713	37.282	1.00	17.56
ATOM	470	CG2	ILE	A	77	1.227	6.165	35.924	1.00	15.42
ATOM	471	C	ILE	A	77	-1.617	5.835	34.878	1.00	16.96
ATOM	472	O	ILE	A	77	-1.733	4.718	35.381	1.00	15.55
ATOM	473	N	LEU	A	78	-1.897	6.184	33.632	1.00	12.76
ATOM	474	CA	LEU	A	78	-2.530	5.255	32.689	1.00	10.94
ATOM	475	CB	LEU	A	78	-3.984	5.623	32.413	1.00	12.51
ATOM	476	CG	LEU	A	78	-4.880	5.963	33.601	1.00	19.43
ATOM	477	CD1	LEU	A	78	-6.237	6.497	33.151	1.00	22.19
ATOM	478	CD2	LEU	A	78	-5.082	4.744	34.486	1.00	24.35
ATOM	479	C	LEU	A	78	-1.723	5.244	31.398	1.00	17.94
ATOM	480	O	LEU	A	78	-1.093	6.248	31.056	1.00	16.73
ATOM	481	N	PRO	A	79	-1.711	4.123	30.692	1.00	19.09
ATOM	482	CA	PRO	A	79	-0.920	4.050	29.450	1.00	16.12
ATOM	483	CB	PRO	A	79	-0.870	2.539	29.199	1.00	9.23
ATOM	484	CG	PRO	A	79	-2.204	2.074	29.718	1.00	11.75
ATOM	485	CD	PRO	A	79	-2.411	2.860	30.988	1.00	15.77
ATOM	486	C	PRO	A	79	-1.655	4.794	28.339	1.00	15.99
ATOM	487	O	PRO	A	79	-2.893	4.828	28.388	1.00	15.25
ATOM	488	N	TYR	A	80	-0.926	5.362	27.389	1.00	10.13
ATOM	489	CA	TYR	A	80	-1.502	5.993	26.206	1.00	11.18
ATOM	490	CB	TYR	A	80	-0.451	6.764	25.423	1.00	13.27
ATOM	491	CG	TYR	A	80	0.146	7.959	26.117	1.00	12.63
ATOM	492	CD1	TYR	A	80	-0.697	8.902	26.685	1.00	18.08
ATOM	493	CE1	TYR	A	80	-0.173	10.005	27.321	1.00	20.03
ATOM	494	CZ	TYR	A	80	1.186	10.172	27.391	1.00	16.07
ATOM	495	OH	TYR	A	80	1.682	11.281	28.032	1.00	21.65
ATOM	496	CE2	TYR	A	80	2.054	9.257	26.837	1.00	13.46
ATOM	497	CD2	TYR	A	80	1.507	8.150	26.198	1.00	14.05
ATOM	498	C	TYR	A	80	-2.104	4.930	25.286	1.00	18.00
ATOM	499	O	TYR	A	80	-1.568	3.823	25.165	1.00	15.44
ATOM	500	N	ASP	A	81	-3.222	5.206	24.625	1.00	15.66
ATOM	501	CA	ASP	A	81	-3.849	4.129	23.846	1.00	18.95
ATOM	502	CB	ASP	A	81	-5.184	4.541	23.239	1.00	21.06
ATOM	503	CG	ASP	A	81	-6.217	5.004	24.239	1.00	23.24
ATOM	504	OD1	ASP	A	81	-6.322	4.394	25.318	1.00	20.28
ATOM	505	OD2	ASP	A	81	-6.944	5.971	23.937	1.00	21.10
ATOM	506	C	ASP	A	81	-2.919	3.699	22.717	1.00	19.22
ATOM	507	O	ASP	A	81	-2.884	2.543	22.314	1.00	24.23
ATOM	508	N	ALA	A	82	-2.171	4.664	22.193	1.00	20.83
ATOM	509	CA	ALA	A	82	-1.326	4.375	21.033	1.00	21.56
ATOM	510	CB	ALA	A	82	-0.802	5.697	20.471	1.00	18.25
ATOM	511	C	ALA	A	82	-0.179	3.424	21.333	1.00	17.70
ATOM	512	O	ALA	A	82	0.344	2.784	20.412	1.00	24.59
ATOM	513	N	THR	A	83	0.291	3.282	22.570	1.00	14.11
ATOM	514	CA	THR	A	83	1.482	2.482	22.831	1.00	15.16
ATOM	515	CB	THR	A	83	2.667	3.349	23.283	1.00	26.72
ATOM	516	OG1	THR	A	83	2.291	4.126	24.431	1.00	20.70
ATOM	517	CG2	THR	A	83	3.076	4.358	22.213	1.00	24.85
ATOM	518	C	THR	A	83	1.223	1.437	23.918	1.00	17.17
ATOM	519	O	THR	A	83	2.168	0.825	24.412	1.00	17.29

**FIGURE 112**

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ATOM	520	N	ARG	A	84	-0.030	1.226	24.310	1.00	14.78
ATOM	521	CA	ARG	A	84	-0.304	0.265	25.377	1.00	14.16
ATOM	522	CB	ARG	A	84	-1.752	0.389	25.832	1.00	16.16
ATOM	523	CG	ARG	A	84	-2.824	-0.021	24.841	1.00	12.30
ATOM	524	CD	ARG	A	84	-4.206	0.035	25.483	1.00	18.81
ATOM	525	NE	ARG	A	84	-5.231	-0.504	24.587	1.00	18.67
ATOM	526	CZ	ARG	A	84	-5.856	-1.657	24.745	1.00	25.65
ATOM	527	NH1	ARG	A	84	-5.570	-2.421	25.794	1.00	18.24
ATOM	528	NH2	ARG	A	84	-6.769	-2.038	23.856	1.00	23.18
ATOM	529	C	ARG	A	84	0.002	-1.164	24.926	1.00	19.54
ATOM	530	O	ARG	A	84	-0.053	-1.498	23.748	1.00	16.47
ATOM	531	N	VAL	A	85	0.340	-2.027	25.871	1.00	14.56
ATOM	532	CA	VAL	A	85	0.511	-3.453	25.593	1.00	15.91
ATOM	533	CB	VAL	A	85	1.516	-4.099	26.552	1.00	9.66
ATOM	534	CG1	VAL	A	85	1.595	-5.605	26.279	1.00	26.22
ATOM	535	CG2	VAL	A	85	2.900	-3.489	26.419	1.00	8.35
ATOM	536	C	VAL	A	85	-0.824	-4.164	25.708	1.00	18.09
ATOM	537	O	VAL	A	85	-1.596	-4.001	26.664	1.00	17.84
ATOM	538	N	LYS	A	86	-1.170	-4.991	24.713	1.00	17.85
ATOM	539	CA	LYS	A	86	-2.481	-5.634	24.797	1.00	16.55
ATOM	540	CB	LYS	A	86	-3.270	-5.448	23.499	1.00	22.98
ATOM	541	CG	LYS	A	86	-3.353	-4.027	22.972	1.00	25.37
ATOM	542	CD	LYS	A	86	-4.093	-3.996	21.641	1.00	35.98
ATOM	543	CE	LYS	A	86	-4.302	-2.569	21.152	1.00	41.61
ATOM	544	NZ	LYS	A	86	-5.067	-2.535	19.870	1.00	41.47
ATOM	545	C	LYS	A	86	-2.354	-7.130	25.073	1.00	17.71
ATOM	546	O	LYS	A	86	-1.473	-7.780	24.495	1.00	26.73
ATOM	547	N	LEU	A	87	-3.238	-7.641	25.909	1.00	16.65
ATOM	548	CA	LEU	A	87	-3.386	-9.070	26.157	1.00	21.87
ATOM	549	CB	LEU	A	87	-4.108	-9.340	27.477	1.00	22.56
ATOM	550	CG	LEU	A	87	-3.573	-8.679	28.751	1.00	19.45
ATOM	551	CD1	LEU	A	87	-4.502	-8.981	29.920	1.00	33.41
ATOM	552	CD2	LEU	A	87	-2.155	-9.123	29.057	1.00	19.25
ATOM	553	C	LEU	A	87	-4.194	-9.716	25.033	1.00	34.42
ATOM	554	O	LEU	A	87	-5.103	-9.087	24.480	1.00	29.92
ATOM	555	N	SER	A	88	-3.906	-10.961	24.684	1.00	39.81
ATOM	556	CA	SER	A	88	-4.712	-11.686	23.715	1.00	42.02
ATOM	557	CB	SER	A	88	-4.153	-13.103	23.509	1.00	45.96
ATOM	558	OG	SER	A	88	-4.499	-13.843	24.684	1.00	44.96
ATOM	559	C	SER	A	88	-6.154	-11.853	24.182	1.00	39.54
ATOM	560	O	SER	A	88	-6.425	-11.712	25.374	1.00	35.93
ATOM	561	N	ASN	A	89	-7.041	-12.175	23.251	1.00	58.52
ATOM	562	CA	ASN	A	89	-8.435	-12.501	23.518	1.00	76.46
ATOM	563	CB	ASN	A	89	-9.366	-11.396	23.017	1.00	82.65
ATOM	564	CG	ASN	A	89	-9.457	-11.372	21.501	1.00	93.50
ATOM	565	OD1	ASN	A	89	-10.512	-11.100	20.929	1.00	104.34
ATOM	566	ND2	ASN	A	89	-8.337	-11.659	20.847	1.00	109.77
ATOM	567	C	ASN	A	89	-8.807	-13.831	22.860	1.00	88.77
ATOM	568	O	ASN	A	89	-8.533	-14.011	21.671	1.00	92.19
ATOM	569	N	VAL	A	90	-9.407	-14.736	23.621	1.00	99.23
ATOM	570	CA	VAL	A	90	-9.793	-16.059	23.144	1.00	106.42
ATOM	571	CB	VAL	A	90	-8.923	-17.172	23.760	1.00	106.95

**FIGURE 113**

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ATOM	572	CG1	VAL	A	90	-9.298	-18.525	23.172	1.00112.12
ATOM	573	CG2	VAL	A	90	-7.444	-16.892	23.548	1.00105.34
ATOM	574	C	VAL	A	90	-11.258	-16.369	23.451	1.00111.33
ATOM	575	O	VAL	A	90	-12.138	-16.117	22.628	1.00105.84
ATOM	576	N	ASP	A	91	-11.510	-16.921	24.632	1.00119.26
ATOM	577	CA	ASP	A	91	-12.855	-17.239	25.095	1.00128.16
ATOM	578	CB	ASP	A	91	-12.828	-18.448	26.031	1.00125.07
ATOM	579	CG	ASP	A	91	-14.191	-18.774	26.609	1.00121.16
ATOM	580	OD1	ASP	A	91	-15.007	-19.377	25.880	1.00104.75
ATOM	581	OD2	ASP	A	91	-14.447	-18.433	27.785	1.00117.18
ATOM	582	C	ASP	A	91	-13.482	-16.042	25.807	1.00139.13
ATOM	583	O	ASP	A	91	-13.028	-15.676	26.894	1.00148.32
ATOM	584	N	ASP	A	92	-14.503	-15.447	25.202	1.00145.93
ATOM	585	CA	ASP	A	92	-15.147	-14.241	25.726	1.00149.70
ATOM	586	CB	ASP	A	92	-15.415	-14.375	27.225	1.00149.57
ATOM	587	CG	ASP	A	92	-16.361	-15.502	27.584	1.00147.36
ATOM	588	OD1	ASP	A	92	-17.567	-15.233	27.781	1.00137.75
ATOM	589	OD2	ASP	A	92	-15.912	-16.665	27.677	1.00148.40
ATOM	590	C	ASP	A	92	-14.286	-13.021	25.419	1.00150.50
ATOM	591	O	ASP	A	92	-13.148	-12.934	25.892	1.00155.89
ATOM	592	N	ASP	A	93	-14.778	-12.068	24.620	1.00148.19
ATOM	593	CA	ASP	A	93	-13.886	-10.998	24.173	1.00145.42
ATOM	594	CB	ASP	A	93	-13.545	-11.222	22.687	1.00146.89
ATOM	595	CG	ASP	A	93	-14.744	-11.594	21.844	1.00147.24
ATOM	596	OD1	ASP	A	93	-15.278	-12.710	22.011	1.00141.98
ATOM	597	OD2	ASP	A	93	-15.159	-10.772	21.001	1.00148.93
ATOM	598	C	ASP	A	93	-14.404	-9.578	24.346	1.00140.50
ATOM	599	O	ASP	A	93	-14.742	-8.922	23.357	1.00135.04
ATOM	600	N	PRO	A	94	-14.451	-9.070	25.570	1.00137.75
ATOM	601	CA	PRO	A	94	-14.684	-7.638	25.812	1.00134.16
ATOM	602	CB	PRO	A	94	-15.340	-7.646	27.190	1.00136.91
ATOM	603	CG	PRO	A	94	-14.801	-8.848	27.882	1.00138.06
ATOM	604	CD	PRO	A	94	-14.305	-9.803	26.837	1.00139.01
ATOM	605	C	PRO	A	94	-13.363	-6.879	25.830	1.00126.58
ATOM	606	O	PRO	A	94	-12.437	-7.253	25.099	1.00132.66
ATOM	607	N	CYS	A	95	-13.220	-5.827	26.639	1.00114.33
ATOM	608	CA	CYS	A	95	-11.898	-5.198	26.765	1.00 95.06
ATOM	609	CB	CYS	A	95	-11.947	-3.690	26.961	1.00 97.01
ATOM	610	SG	CYS	A	95	-10.323	-2.901	27.121	1.00 74.50
ATOM	611	C	CYS	A	95	-11.146	-5.872	27.913	1.00 71.83
ATOM	612	O	CYS	A	95	-10.629	-5.311	28.870	1.00 58.75
ATOM	613	N	SER	A	96	-11.089	-7.193	27.759	1.00 54.83
ATOM	614	CA	SER	A	96	-10.254	-8.038	28.595	1.00 46.09
ATOM	615	CB	SER	A	96	-10.848	-9.437	28.720	1.00 49.86
ATOM	616	OG	SER	A	96	-10.801	-10.147	27.491	1.00 47.97
ATOM	617	C	SER	A	96	-8.854	-8.076	27.988	1.00 31.56
ATOM	618	O	SER	A	96	-8.045	-8.933	28.321	1.00 30.50
ATOM	619	N	ASP	A	97	-8.562	-7.129	27.085	1.00 25.83
ATOM	620	CA	ASP	A	97	-7.233	-7.050	26.495	1.00 17.26
ATOM	621	CB	ASP	A	97	-7.317	-6.646	25.029	1.00 22.22
ATOM	622	CG	ASP	A	97	-7.590	-5.179	24.772	1.00 32.54
ATOM	623	OD1	ASP	A	97	-7.945	-4.404	25.681	1.00 25.44

**FIGURE 114**

ATOM	624	OD2	ASP	A	97	-7.444	-4.765	23.600	1.00	44.31
ATOM	625	C	ASP	A	97	-6.357	-6.065	27.271	1.00	18.88
ATOM	626	O	ASP	A	97	-5.194	-5.883	26.902	1.00	18.89
ATOM	627	N	TYR	A	98	-6.947	-5.456	28.296	1.00	20.04
ATOM	628	CA	TYR	A	98	-6.313	-4.338	28.976	1.00	18.41
ATOM	629	CB	TYR	A	98	-7.366	-3.378	29.609	1.00	18.59
ATOM	630	CG	TYR	A	98	-6.631	-2.221	30.288	1.00	20.03
ATOM	631	CD1	TYR	A	98	-6.043	-1.216	29.522	1.00	16.83
ATOM	632	CE1	TYR	A	98	-5.361	-0.144	30.090	1.00	13.49
ATOM	633	CZ	TYR	A	98	-5.276	-0.116	31.471	1.00	19.51
ATOM	634	OH	TYR	A	98	-4.624	0.908	32.106	1.00	14.09
ATOM	635	CE2	TYR	A	98	-5.846	-1.095	32.255	1.00	13.64
ATOM	636	CD2	TYR	A	98	-6.528	-2.145	31.673	1.00	17.45
ATOM	637	C	TYR	A	98	-5.343	-4.746	30.066	1.00	18.17
ATOM	638	O	TYR	A	98	-5.664	-5.449	31.020	1.00	22.86
ATOM	639	N	ILE	A	99	-4.130	-4.218	29.989	1.00	14.66
ATOM	640	CA	ILE	A	99	-3.274	-4.175	31.172	1.00	17.87
ATOM	641	CB	ILE	A	99	-2.221	-5.290	31.223	1.00	17.34
ATOM	642	CG1	ILE	A	99	-1.274	-5.190	32.428	1.00	13.76
ATOM	643	CD1	ILE	A	99	-0.492	-6.481	32.633	1.00	14.80
ATOM	644	CG2	ILE	A	99	-1.443	-5.348	29.924	1.00	15.59
ATOM	645	C	ILE	A	99	-2.594	-2.807	31.227	1.00	14.26
ATOM	646	O	ILE	A	99	-2.353	-2.191	30.183	1.00	16.44
ATOM	647	N	ASN	A	100	-2.315	-2.334	32.435	1.00	14.80
ATOM	648	CA	ASN	A	100	-1.609	-1.054	32.562	1.00	12.64
ATOM	649	CB	ASN	A	100	-1.818	-0.440	33.951	1.00	11.26
ATOM	650	CG	ASN	A	100	-1.326	0.997	33.976	1.00	13.09
ATOM	651	OD1	ASN	A	100	-0.260	1.278	33.456	1.00	13.19
ATOM	652	ND2	ASN	A	100	-2.099	1.903	34.579	1.00	15.88
ATOM	653	C	ASN	A	100	-0.134	-1.242	32.244	1.00	10.03
ATOM	654	O	ASN	A	100	0.698	-1.477	33.119	1.00	12.85
ATOM	655	N	ALA	A	101	0.193	-1.152	30.946	1.00	10.66
ATOM	656	CA	ALA	A	101	1.550	-1.361	30.488	1.00	9.30
ATOM	657	CB	ALA	A	101	1.839	-2.863	30.397	1.00	13.80
ATOM	658	C	ALA	A	101	1.777	-0.712	29.125	1.00	6.85
ATOM	659	O	ALA	A	101	0.809	-0.539	28.394	1.00	12.08
ATOM	660	N	SER	A	102	3.026	-0.393	28.829	1.00	9.92
ATOM	661	CA	SER	A	102	3.389	0.362	27.641	1.00	14.73
ATOM	662	CB	SER	A	102	3.650	1.831	28.010	1.00	11.60
ATOM	663	OG	SER	A	102	2.561	2.407	28.691	1.00	11.12
ATOM	664	C	SER	A	102	4.644	-0.211	26.986	1.00	15.69
ATOM	665	O	SER	A	102	5.563	-0.654	27.686	1.00	12.17
ATOM	666	N	TYR	A	103	4.680	-0.176	25.652	1.00	9.06
ATOM	667	CA	TYR	A	103	5.889	-0.530	24.933	1.00	9.07
ATOM	668	CB	TYR	A	103	5.549	-0.917	23.486	1.00	9.50
ATOM	669	CG	TYR	A	103	4.870	-2.239	23.265	1.00	12.57
ATOM	670	CD1	TYR	A	103	5.544	-3.435	23.487	1.00	12.90
ATOM	671	CE1	TYR	A	103	4.895	-4.640	23.272	1.00	20.46
ATOM	672	CZ	TYR	A	103	3.592	-4.680	22.839	1.00	22.70
ATOM	673	OH	TYR	A	103	2.962	-5.894	22.627	1.00	18.14
ATOM	674	CE2	TYR	A	103	2.903	-3.500	22.608	1.00	18.79
ATOM	675	CD2	TYR	A	103	3.551	-2.304	22.825	1.00	15.94

**FIGURE 115**

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Three Dimensional Coordinates of HPTPbeta

ATOM	676	C	TYR	A	103	6.867	0.630	24.891	1.00	18.09
ATOM	677	O	TYR	A	103	6.457	1.768	24.641	1.00	20.48
ATOM	678	N	ILE	A	104	8.155	0.358	25.111	1.00	15.21
ATOM	679	CA	ILE	A	104	9.108	1.466	25.121	1.00	15.90
ATOM	680	CB	ILE	A	104	9.608	1.785	26.545	1.00	22.38
ATOM	681	CG1	ILE	A	104	8.496	1.941	27.585	1.00	20.69
ATOM	682	CD1	ILE	A	104	7.599	3.126	27.276	1.00	17.88
ATOM	683	CG2	ILE	A	104	10.476	3.034	26.538	1.00	22.81
ATOM	684	C	ILE	A	104	10.309	1.146	24.243	1.00	17.74
ATOM	685	O	ILE	A	104	10.911	0.086	24.357	1.00	16.43
ATOM	686	N	PRO	A	105	10.677	2.062	23.352	1.00	17.30
ATOM	687	CA	PRO	A	105	11.894	1.894	22.563	1.00	16.76
ATOM	688	CB	PRO	A	105	11.837	3.088	21.592	1.00	24.69
ATOM	689	CG	PRO	A	105	10.418	3.563	21.626	1.00	25.93
ATOM	690	CD	PRO	A	105	9.941	3.295	23.030	1.00	21.65
ATOM	691	C	PRO	A	105	13.174	2.007	23.372	1.00	21.81
ATOM	692	O	PRO	A	105	13.286	2.726	24.368	1.00	21.23
ATOM	693	N	GLY	A	106	14.205	1.282	22.935	1.00	17.97
ATOM	694	CA	GLY	A	106	15.504	1.436	23.569	1.00	16.53
ATOM	695	C	GLY	A	106	16.557	1.885	22.578	1.00	24.48
ATOM	696	O	GLY	A	106	16.248	2.474	21.543	1.00	24.56
ATOM	697	N	ASN	A	107	17.824	1.595	22.858	1.00	24.62
ATOM	698	CA	ASN	A	107	18.889	2.049	21.971	1.00	31.26
ATOM	699	CB	ASN	A	107	20.249	1.899	22.661	1.00	38.05
ATOM	700	CG	ASN	A	107	20.775	3.221	23.184	1.00	50.06
ATOM	701	OD1	ASN	A	107	20.008	4.143	23.476	1.00	66.78
ATOM	702	ND2	ASN	A	107	22.094	3.313	23.301	1.00	52.90
ATOM	703	C	ASN	A	107	18.917	1.269	20.663	1.00	30.81
ATOM	704	O	ASN	A	107	19.482	1.767	19.693	1.00	28.48
ATOM	705	N	ASN	A	108	18.329	0.080	20.679	1.00	32.22
ATOM	706	CA	ASN	A	108	18.512	-0.922	19.640	1.00	32.10
ATOM	707	CB	ASN	A	108	19.098	-2.184	20.305	1.00	37.07
ATOM	708	CG	ASN	A	108	20.233	-1.830	21.251	1.00	46.06
ATOM	709	OD1	ASN	A	108	21.309	-1.443	20.780	1.00	27.30
ATOM	710	ND2	ASN	A	108	20.005	-1.966	22.559	1.00	28.03
ATOM	711	C	ASN	A	108	17.262	-1.291	18.863	1.00	34.62
ATOM	712	O	ASN	A	108	17.392	-1.721	17.708	1.00	34.88
ATOM	713	N	PHE	A	109	16.060	-1.168	19.423	1.00	25.20
ATOM	714	CA	PHE	A	109	14.840	-1.500	18.690	1.00	22.97
ATOM	715	CB	PHE	A	109	14.603	-2.993	18.522	1.00	22.47
ATOM	716	CG	PHE	A	109	14.885	-3.951	19.661	1.00	28.29
ATOM	717	CD1	PHE	A	109	13.849	-4.560	20.357	1.00	24.27
ATOM	718	CE1	PHE	A	109	14.113	-5.455	21.391	1.00	22.67
ATOM	719	CZ	PHE	A	109	15.414	-5.748	21.750	1.00	19.40
ATOM	720	CE2	PHE	A	109	16.451	-5.143	21.061	1.00	34.44
ATOM	721	CD2	PHE	A	109	16.183	-4.259	20.033	1.00	33.01
ATOM	722	C	PHE	A	109	13.620	-0.886	19.383	1.00	19.13
ATOM	723	O	PHE	A	109	13.686	-0.531	20.559	1.00	20.41
ATOM	724	N	ARG	A	110	12.538	-0.787	18.641	1.00	16.32
ATOM	725	CA	ARG	A	110	11.318	-0.110	19.048	1.00	23.52
ATOM	726	CB	ARG	A	110	10.342	-0.036	17.853	1.00	22.40
ATOM	727	CG	ARG	A	110	10.918	0.753	16.688	1.00	29.99

**FIGURE 116**



ATOM	728	CD	ARG	A	110	9.987	1.901	16.317	1.00	44.00
ATOM	729	NE	ARG	A	110	10.461	3.122	16.971	1.00	64.93
ATOM	730	CZ	ARG	A	110	10.694	4.269	16.352	1.00	72.68
ATOM	731	NH1	ARG	A	110	10.494	4.368	15.044	1.00	62.39
ATOM	732	NH2	ARG	A	110	11.125	5.318	17.045	1.00	82.09
ATOM	733	C	ARG	A	110	10.607	-0.783	20.197	1.00	28.20
ATOM	734	O	ARG	A	110	9.959	-0.177	21.052	1.00	29.57
ATOM	735	N	ARG	A	111	10.665	-2.120	20.269	1.00	19.46
ATOM	736	CA	ARG	A	111	9.868	-2.607	21.432	1.00	19.03
ATOM	737	CB	ARG	A	111	8.795	-3.563	20.962	1.00	15.07
ATOM	738	CG	ARG	A	111	7.581	-2.905	20.332	1.00	22.11
ATOM	739	CD	ARG	A	111	6.553	-3.962	19.940	1.00	34.64
ATOM	740	NE	ARG	A	111	5.295	-3.339	19.524	1.00	33.18
ATOM	741	CZ	ARG	A	111	4.166	-4.022	19.393	1.00	25.21
ATOM	742	NH1	ARG	A	111	4.172	-5.327	19.654	1.00	22.23
ATOM	743	NH2	ARG	A	111	3.074	-3.380	19.012	1.00	32.75
ATOM	744	C	ARG	A	111	10.831	-3.241	22.417	1.00	17.42
ATOM	745	O	ARG	A	111	10.720	-4.425	22.726	1.00	18.84
ATOM	746	N	GLU	A	112	11.800	-2.432	22.855	1.00	12.49
ATOM	747	CA	GLU	A	112	12.900	-2.998	23.629	1.00	13.99
ATOM	748	CB	GLU	A	112	14.070	-2.005	23.581	1.00	15.59
ATOM	749	CG	GLU	A	112	15.378	-2.703	23.860	1.00	21.33
ATOM	750	CD	GLU	A	112	16.623	-2.023	23.352	1.00	27.40
ATOM	751	OE1	GLU	A	112	17.658	-2.284	23.998	1.00	26.38
ATOM	752	OE2	GLU	A	112	16.619	-1.264	22.363	1.00	25.78
ATOM	753	C	GLU	A	112	12.516	-3.334	25.062	1.00	18.95
ATOM	754	O	GLU	A	112	13.022	-4.273	25.693	1.00	14.06
ATOM	755	N	TYR	A	113	11.576	-2.551	25.570	1.00	17.52
ATOM	756	CA	TYR	A	113	11.060	-2.731	26.911	1.00	15.61
ATOM	757	CB	TYR	A	113	11.542	-1.629	27.858	1.00	17.96
ATOM	758	CG	TYR	A	113	12.990	-1.237	27.756	1.00	14.87
ATOM	759	CD1	TYR	A	113	13.405	-0.255	26.878	1.00	17.71
ATOM	760	CE1	TYR	A	113	14.734	0.114	26.781	1.00	16.32
ATOM	761	CZ	TYR	A	113	15.671	-0.495	27.574	1.00	15.65
ATOM	762	OH	TYR	A	113	17.002	-0.145	27.493	1.00	18.69
ATOM	763	CE2	TYR	A	113	15.289	-1.484	28.467	1.00	14.44
ATOM	764	CD2	TYR	A	113	13.959	-1.844	28.553	1.00	14.04
ATOM	765	C	TYR	A	113	9.551	-2.702	26.926	1.00	9.51
ATOM	766	O	TYR	A	113	8.855	-2.122	26.096	1.00	11.17
ATOM	767	N	ILE	A	114	9.031	-3.382	27.957	1.00	12.36
ATOM	768	CA	ILE	A	114	7.655	-3.187	28.333	1.00	9.29
ATOM	769	CB	ILE	A	114	6.831	-4.487	28.322	1.00	13.67
ATOM	770	CG1	ILE	A	114	6.425	-4.912	26.904	1.00	14.89
ATOM	771	CD1	ILE	A	114	5.910	-6.337	26.844	1.00	15.51
ATOM	772	CG2	ILE	A	114	5.623	-4.377	29.232	1.00	8.31
ATOM	773	C	ILE	A	114	7.674	-2.598	29.746	1.00	16.23
ATOM	774	O	ILE	A	114	8.249	-3.182	30.662	1.00	15.28
ATOM	775	N	VAL	A	115	7.060	-1.438	29.910	1.00	14.17
ATOM	776	CA	VAL	A	115	7.015	-0.801	31.225	1.00	15.15
ATOM	777	CB	VAL	A	115	7.294	0.710	31.084	1.00	20.35
ATOM	778	CG1	VAL	A	115	6.761	1.465	32.288	1.00	29.43
ATOM	779	CG2	VAL	A	115	8.792	0.932	30.901	1.00	19.15

FIGURE 117

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ATOM	780	C	VAL	A	115	5.645	-1.011	31.821	1.00	13.67
ATOM	781	O	VAL	A	115	4.631	-0.945	31.114	1.00	12.23
ATOM	782	N	THR	A	116	5.556	-1.291	33.122	1.00	13.19
ATOM	783	CA	THR	A	116	4.208	-1.553	33.635	1.00	12.05
ATOM	784	CB	THR	A	116	3.828	-3.042	33.478	1.00	14.77
ATOM	785	OG1	THR	A	116	2.432	-3.257	33.750	1.00	13.69
ATOM	786	CG2	THR	A	116	4.589	-3.936	34.458	1.00	17.06
ATOM	787	C	THR	A	116	4.173	-1.057	35.072	1.00	9.33
ATOM	788	O	THR	A	116	5.221	-0.780	35.652	1.00	8.64
ATOM	789	N	GLN	A	117	2.982	-0.942	35.626	1.00	10.66
ATOM	790	CA	GLN	A	117	2.843	-0.618	37.039	1.00	8.65
ATOM	791	CB	GLN	A	117	1.384	-0.239	37.297	1.00	9.54
ATOM	792	CG	GLN	A	117	0.384	-1.351	37.114	1.00	12.18
ATOM	793	CD	GLN	A	117	-1.071	-1.010	37.307	1.00	19.05
ATOM	794	OE1	GLN	A	117	-1.506	0.143	37.314	1.00	13.39
ATOM	795	NE2	GLN	A	117	-1.918	-2.025	37.476	1.00	9.71
ATOM	796	C	GLN	A	117	3.215	-1.826	37.895	1.00	11.64
ATOM	797	O	GLN	A	117	3.347	-2.918	37.345	1.00	15.93
ATOM	798	N	GLY	A	118	3.356	-1.703	39.207	1.00	11.16
ATOM	799	CA	GLY	A	118	3.499	-2.903	40.060	1.00	10.85
ATOM	800	C	GLY	A	118	2.157	-3.620	40.096	1.00	13.55
ATOM	801	O	GLY	A	118	1.119	-3.034	40.400	1.00	15.26
ATOM	802	N	PRO	A	119	2.148	-4.916	39.758	1.00	12.96
ATOM	803	CA	PRO	A	119	0.901	-5.678	39.674	1.00	9.13
ATOM	804	CB	PRO	A	119	1.408	-7.119	39.531	1.00	18.59
ATOM	805	CG	PRO	A	119	2.720	-6.964	38.824	1.00	19.31
ATOM	806	CD	PRO	A	119	3.341	-5.706	39.396	1.00	15.37
ATOM	807	C	PRO	A	119	0.079	-5.567	40.953	1.00	8.91
ATOM	808	O	PRO	A	119	0.680	-5.487	42.027	1.00	19.14
ATOM	809	N	LEU	A	120	-1.228	-5.555	40.787	1.00	13.32
ATOM	810	CA	LEU	A	120	-2.126	-5.581	41.935	1.00	15.54
ATOM	811	CB	LEU	A	120	-3.388	-4.787	41.631	1.00	19.85
ATOM	812	CG	LEU	A	120	-3.158	-3.297	41.331	1.00	20.01
ATOM	813	CD1	LEU	A	120	-4.225	-2.766	40.392	1.00	17.81
ATOM	814	CD2	LEU	A	120	-3.135	-2.537	42.646	1.00	24.41
ATOM	815	C	LEU	A	120	-2.481	-7.038	42.220	1.00	19.68
ATOM	816	O	LEU	A	120	-2.257	-7.863	41.327	1.00	18.35
ATOM	817	N	PRO	A	121	-3.030	-7.304	43.390	1.00	24.41
ATOM	818	CA	PRO	A	121	-3.516	-8.674	43.666	1.00	25.78
ATOM	819	CB	PRO	A	121	-4.280	-8.500	44.981	1.00	26.53
ATOM	820	CG	PRO	A	121	-3.702	-7.283	45.633	1.00	23.83
ATOM	821	CD	PRO	A	121	-3.243	-6.377	44.519	1.00	22.44
ATOM	822	C	PRO	A	121	-4.419	-9.154	42.533	1.00	25.28
ATOM	823	O	PRO	A	121	-4.338	-10.302	42.074	1.00	26.89
ATOM	824	N	GLY	A	122	-5.292	-8.281	42.027	1.00	28.95
ATOM	825	CA	GLY	A	122	-6.226	-8.601	40.969	1.00	25.36
ATOM	826	C	GLY	A	122	-5.706	-8.512	39.557	1.00	27.04
ATOM	827	O	GLY	A	122	-6.422	-8.858	38.606	1.00	25.16
ATOM	828	N	THR	A	123	-4.472	-8.062	39.322	1.00	18.42
ATOM	829	CA	THR	A	123	-3.944	-8.084	37.954	1.00	17.40
ATOM	830	CB	THR	A	123	-3.607	-6.662	37.448	1.00	16.82
ATOM	831	OG1	THR	A	123	-2.539	-6.104	38.220	1.00	16.41

**FIGURE 118**

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ATOM	832	CG2	THR	A	123	-4.828	-5.762	37.609	1.00	13.52
ATOM	833	C	THR	A	123	-2.691	-8.924	37.831	1.00	15.59
ATOM	834	O	THR	A	123	-2.040	-8.987	36.787	1.00	20.37
ATOM	835	N	LYS	A	124	-2.242	-9.614	38.888	1.00	15.84
ATOM	836	CA	LYS	A	124	-0.996	-10.357	38.635	1.00	17.87
ATOM	837	CB	LYS	A	124	-0.395	-10.888	39.928	1.00	14.86
ATOM	838	CG	LYS	A	124	-1.274	-11.701	40.840	1.00	15.78
ATOM	839	CD	LYS	A	124	-0.510	-11.950	42.138	1.00	23.39
ATOM	840	CE	LYS	A	124	-1.394	-12.535	43.232	1.00	25.01
ATOM	841	NZ	LYS	A	124	-0.522	-12.822	44.422	1.00	30.58
ATOM	842	C	LYS	A	124	-1.169	-11.500	37.639	1.00	13.08
ATOM	843	O	LYS	A	124	-0.190	-11.858	36.969	1.00	18.52
ATOM	844	N	ASP	A	125	-2.359	-12.084	37.537	1.00	16.39
ATOM	845	CA	ASP	A	125	-2.521	-13.172	36.561	1.00	18.39
ATOM	846	CB	ASP	A	125	-3.854	-13.887	36.710	1.00	25.32
ATOM	847	CG	ASP	A	125	-3.975	-14.629	38.028	1.00	28.44
ATOM	848	OD1	ASP	A	125	-2.925	-14.835	38.666	1.00	26.58
ATOM	849	OD2	ASP	A	125	-5.108	-14.987	38.393	1.00	36.95
ATOM	850	C	ASP	A	125	-2.397	-12.588	35.160	1.00	17.43
ATOM	851	O	ASP	A	125	-1.848	-13.215	34.260	1.00	22.46
ATOM	852	N	ASP	A	126	-2.906	-11.376	35.006	1.00	18.42
ATOM	853	CA	ASP	A	126	-2.740	-10.637	33.754	1.00	17.99
ATOM	854	CB	ASP	A	126	-3.494	-9.310	33.841	1.00	20.62
ATOM	855	CG	ASP	A	126	-4.982	-9.448	34.061	1.00	38.88
ATOM	856	OD1	ASP	A	126	-5.618	-10.322	33.434	1.00	37.14
ATOM	857	OD2	ASP	A	126	-5.512	-8.656	34.867	1.00	50.50
ATOM	858	C	ASP	A	126	-1.278	-10.346	33.451	1.00	19.58
ATOM	859	O	ASP	A	126	-0.763	-10.451	32.338	1.00	19.76
ATOM	860	N	PHE	A	127	-0.558	-9.916	34.485	1.00	20.86
ATOM	861	CA	PHE	A	127	0.860	-9.628	34.340	1.00	14.49
ATOM	862	CB	PHE	A	127	1.450	-9.238	35.698	1.00	12.42
ATOM	863	CG	PHE	A	127	2.959	-9.103	35.725	1.00	16.56
ATOM	864	CD1	PHE	A	127	3.522	-7.877	35.359	1.00	14.21
ATOM	865	CE1	PHE	A	127	4.879	-7.705	35.354	1.00	16.34
ATOM	866	CZ	PHE	A	127	5.727	-8.740	35.709	1.00	23.61
ATOM	867	CE2	PHE	A	127	5.187	-9.955	36.082	1.00	17.94
ATOM	868	CD2	PHE	A	127	3.820	-10.126	36.094	1.00	10.35
ATOM	869	C	PHE	A	127	1.581	-10.861	33.812	1.00	17.74
ATOM	870	O	PHE	A	127	2.410	-10.836	32.917	1.00	13.35
ATOM	871	N	TRP	A	128	1.311	-12.025	34.435	1.00	11.40
ATOM	872	CA	TRP	A	128	2.102	-13.181	33.987	1.00	15.21
ATOM	873	CB	TRP	A	128	1.989	-14.340	34.993	1.00	10.56
ATOM	874	CG	TRP	A	128	2.845	-14.116	36.205	1.00	8.09
ATOM	875	CD1	TRP	A	128	2.376	-13.938	37.463	1.00	11.21
ATOM	876	NE1	TRP	A	128	3.421	-13.764	38.325	1.00	8.52
ATOM	877	CE2	TRP	A	128	4.594	-13.825	37.643	1.00	13.75
ATOM	878	CD2	TRP	A	128	4.266	-14.046	36.298	1.00	12.80
ATOM	879	CE3	TRP	A	128	5.315	-14.155	35.373	1.00	11.11
ATOM	880	CZ3	TRP	A	128	6.605	-14.034	35.821	1.00	11.38
ATOM	881	CH2	TRP	A	128	6.893	-13.810	37.181	1.00	16.48
ATOM	882	CZ2	TRP	A	128	5.902	-13.701	38.112	1.00	15.53
ATOM	883	C	TRP	A	128	1.654	-13.612	32.601	1.00	12.30

**FIGURE 119**

ATOM	884	O	TRP	A	128	2.460	-14.098	31.798	1.00	20.27
ATOM	885	N	LYS	A	129	0.386	-13.432	32.287	1.00	14.47
ATOM	886	CA	LYS	A	129	-0.123	-13.666	30.937	1.00	19.61
ATOM	887	CB	LYS	A	129	-1.619	-13.344	30.895	1.00	17.71
ATOM	888	CG	LYS	A	129	-2.234	-13.587	29.519	1.00	25.76
ATOM	889	CD	LYS	A	129	-3.746	-13.768	29.659	1.00	30.81
ATOM	890	CE	LYS	A	129	-4.330	-14.309	28.366	1.00	42.38
ATOM	891	NZ	LYS	A	129	-5.236	-13.325	27.707	1.00	64.19
ATOM	892	C	LYS	A	129	0.600	-12.834	29.884	1.00	20.15
ATOM	893	O	LYS	A	129	0.974	-13.321	28.816	1.00	19.90
ATOM	894	N	MET	A	130	0.803	-11.553	30.185	1.00	15.51
ATOM	895	CA	MET	A	130	1.625	-10.693	29.342	1.00	12.30
ATOM	896	CB	MET	A	130	1.651	-9.264	29.941	1.00	13.90
ATOM	897	CG	MET	A	130	2.496	-8.310	29.089	1.00	21.15
ATOM	898	SD	MET	A	130	2.449	-6.632	29.804	1.00	18.25
ATOM	899	CE	MET	A	130	3.476	-6.963	31.261	1.00	9.99
ATOM	900	C	MET	A	130	3.032	-11.212	29.173	1.00	12.39
ATOM	901	O	MET	A	130	3.562	-11.277	28.043	1.00	16.98
ATOM	902	N	VAL	A	131	3.694	-11.586	30.273	1.00	12.09
ATOM	903	CA	VAL	A	131	5.070	-12.076	30.234	1.00	11.97
ATOM	904	CB	VAL	A	131	5.538	-12.430	31.659	1.00	16.20
ATOM	905	CG1	VAL	A	131	6.799	-13.282	31.685	1.00	15.59
ATOM	906	CG2	VAL	A	131	5.769	-11.144	32.455	1.00	15.38
ATOM	907	C	VAL	A	131	5.163	-13.304	29.317	1.00	15.84
ATOM	908	O	VAL	A	131	6.079	-13.467	28.514	1.00	16.14
ATOM	909	N	TRP	A	132	4.164	-14.167	29.469	1.00	14.48
ATOM	910	CA	TRP	A	132	4.080	-15.371	28.632	1.00	22.42
ATOM	911	CB	TRP	A	132	2.932	-16.265	29.104	1.00	21.06
ATOM	912	CG	TRP	A	132	2.745	-17.494	28.255	1.00	22.35
ATOM	913	CD1	TRP	A	132	1.874	-17.689	27.232	1.00	23.78
ATOM	914	NE1	TRP	A	132	2.025	-18.958	26.719	1.00	33.60
ATOM	915	CE2	TRP	A	132	3.010	-19.603	27.414	1.00	33.31
ATOM	916	CD2	TRP	A	132	3.490	-18.709	28.393	1.00	28.48
ATOM	917	CE3	TRP	A	132	4.512	-19.117	29.253	1.00	28.47
ATOM	918	CZ3	TRP	A	132	5.026	-20.393	29.117	1.00	36.09
ATOM	919	CH2	TRP	A	132	4.526	-21.255	28.134	1.00	36.28
ATOM	920	CZ2	TRP	A	132	3.528	-20.889	27.277	1.00	36.96
ATOM	921	C	TRP	A	132	3.856	-15.027	27.164	1.00	20.60
ATOM	922	O	TRP	A	132	4.646	-15.362	26.287	1.00	21.95
ATOM	923	N	GLU	A	133	2.758	-14.324	26.879	1.00	25.53
ATOM	924	CA	GLU	A	133	2.457	-13.988	25.485	1.00	19.74
ATOM	925	CB	GLU	A	133	1.135	-13.223	25.431	1.00	18.87
ATOM	926	CG	GLU	A	133	-0.060	-14.082	25.806	1.00	25.68
ATOM	927	CD	GLU	A	133	-1.358	-13.302	25.838	1.00	29.70
ATOM	928	OE1	GLU	A	133	-1.312	-12.052	25.763	1.00	30.46
ATOM	929	OE2	GLU	A	133	-2.414	-13.968	25.938	1.00	36.60
ATOM	930	C	GLU	A	133	3.539	-13.175	24.804	1.00	28.51
ATOM	931	O	GLU	A	133	3.674	-13.293	23.581	1.00	21.96
ATOM	932	N	GLN	A	134	4.290	-12.351	25.538	1.00	19.31
ATOM	933	CA	GLN	A	134	5.274	-11.491	24.889	1.00	19.87
ATOM	934	CB	GLN	A	134	5.351	-10.130	25.608	1.00	17.70
ATOM	935	CG	GLN	A	134	4.018	-9.384	25.508	1.00	16.42

**FIGURE 120**

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ATOM	936	CD	GLN	A	134	3.914	-8.755	24.122	1.00	23.73
ATOM	937	OE1	GLN	A	134	4.912	-8.253	23.602	1.00	28.15
ATOM	938	NE2	GLN	A	134	2.717	-8.831	23.569	1.00	32.92
ATOM	939	C	GLN	A	134	6.657	-12.107	24.865	1.00	20.31
ATOM	940	O	GLN	A	134	7.638	-11.458	24.496	1.00	17.95
ATOM	941	N	ASN	A	135	6.778	-13.370	25.276	1.00	19.01
ATOM	942	CA	ASN	A	135	8.098	-13.993	25.193	1.00	21.67
ATOM	943	CB	ASN	A	135	8.553	-13.988	23.723	1.00	21.93
ATOM	944	CG	ASN	A	135	7.716	-14.985	22.931	1.00	35.97
ATOM	945	OD1	ASN	A	135	7.987	-16.184	23.006	1.00	58.93
ATOM	946	ND2	ASN	A	135	6.729	-14.503	22.186	1.00	42.17
ATOM	947	C	ASN	A	135	9.119	-13.307	26.077	1.00	19.81
ATOM	948	O	ASN	A	135	10.309	-13.220	25.769	1.00	16.12
ATOM	949	N	VAL	A	136	8.655	-12.799	27.229	1.00	20.36
ATOM	950	CA	VAL	A	136	9.581	-12.111	28.122	1.00	15.08
ATOM	951	CB	VAL	A	136	8.778	-11.340	29.200	1.00	15.13
ATOM	952	CG1	VAL	A	136	9.745	-10.779	30.232	1.00	12.04
ATOM	953	CG2	VAL	A	136	7.926	-10.264	28.538	1.00	15.49
ATOM	954	C	VAL	A	136	10.502	-13.092	28.836	1.00	14.70
ATOM	955	O	VAL	A	136	9.982	-14.072	29.366	1.00	16.57
ATOM	956	N	HIS	A	137	11.802	-12.874	28.906	1.00	14.74
ATOM	957	CA	HIS	A	137	12.674	-13.744	29.696	1.00	21.99
ATOM	958	CB	HIS	A	137	13.779	-14.320	28.813	1.00	29.85
ATOM	959	CG	HIS	A	137	13.243	-15.085	27.643	1.00	41.77
ATOM	960	ND1	HIS	A	137	12.224	-14.609	26.847	1.00	47.82
ATOM	961	CE1	HIS	A	137	11.951	-15.483	25.894	1.00	50.67
ATOM	962	NE2	HIS	A	137	12.762	-16.515	26.043	1.00	51.38
ATOM	963	CD2	HIS	A	137	13.575	-16.290	27.131	1.00	52.47
ATOM	964	C	HIS	A	137	13.278	-12.993	30.881	1.00	19.04
ATOM	965	O	HIS	A	137	13.809	-13.584	31.822	1.00	20.60
ATOM	966	N	ASN	A	138	13.193	-11.663	30.864	1.00	14.47
ATOM	967	CA	ASN	A	138	13.841	-10.854	31.884	1.00	13.33
ATOM	968	CB	ASN	A	138	15.068	-10.147	31.291	1.00	17.70
ATOM	969	CG	ASN	A	138	16.167	-11.101	30.874	1.00	22.71
ATOM	970	OD1	ASN	A	138	16.544	-11.199	29.699	1.00	22.97
ATOM	971	ND2	ASN	A	138	16.701	-11.826	31.845	1.00	11.98
ATOM	972	C	ASN	A	138	12.881	-9.806	32.455	1.00	19.07
ATOM	973	O	ASN	A	138	12.306	-9.048	31.668	1.00	14.29
ATOM	974	N	ILE	A	139	12.750	-9.775	33.771	1.00	13.58
ATOM	975	CA	ILE	A	139	11.914	-8.814	34.474	1.00	17.38
ATOM	976	CB	ILE	A	139	10.769	-9.506	35.247	1.00	14.95
ATOM	977	CG1	ILE	A	139	9.801	-10.303	34.371	1.00	16.27
ATOM	978	CD1	ILE	A	139	8.895	-11.256	35.154	1.00	11.30
ATOM	979	CG2	ILE	A	139	10.015	-8.481	36.087	1.00	10.83
ATOM	980	C	ILE	A	139	12.749	-7.985	35.446	1.00	22.75
ATOM	981	O	ILE	A	139	13.512	-8.536	36.247	1.00	19.39
ATOM	982	N	VAL	A	140	12.624	-6.663	35.401	1.00	11.65
ATOM	983	CA	VAL	A	140	13.383	-5.800	36.301	1.00	8.08
ATOM	984	CB	VAL	A	140	14.205	-4.745	35.542	1.00	17.09
ATOM	985	CG1	VAL	A	140	14.949	-3.802	36.480	1.00	11.40
ATOM	986	CG2	VAL	A	140	15.188	-5.436	34.593	1.00	15.24
ATOM	987	C	VAL	A	140	12.387	-5.094	37.211	1.00	15.07

**FIGURE 121**

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ATOM	988	O	VAL	A	140	11.457	-4.455	36.710	1.00	14.02
ATOM	989	N	MET	A	141	12.575	-5.238	38.515	1.00	14.68
ATOM	990	CA	MET	A	141	11.685	-4.587	39.483	1.00	13.84
ATOM	991	CB	MET	A	141	11.042	-5.664	40.363	1.00	10.75
ATOM	992	CG	MET	A	141	10.187	-5.130	41.494	1.00	13.65
ATOM	993	SD	MET	A	141	9.374	-6.486	42.348	1.00	17.62
ATOM	994	CE	MET	A	141	8.443	-5.608	43.606	1.00	16.36
ATOM	995	C	MET	A	141	12.481	-3.580	40.309	1.00	15.95
ATOM	996	O	MET	A	141	13.483	-3.948	40.946	1.00	13.08
ATOM	997	N	VAL	A	142	12.088	-2.304	40.318	1.00	11.30
ATOM	998	CA	VAL	A	142	12.946	-1.331	41.013	1.00	9.46
ATOM	999	CB	VAL	A	142	13.600	-0.291	40.092	1.00	13.94
ATOM	1000	CG1	VAL	A	142	14.741	-0.924	39.288	1.00	13.37
ATOM	1001	CG2	VAL	A	142	12.590	0.342	39.149	1.00	17.83
ATOM	1002	C	VAL	A	142	12.140	-0.611	42.099	1.00	17.41
ATOM	1003	O	VAL	A	142	12.299	0.591	42.303	1.00	23.87
ATOM	1004	N	THR	A	143	11.299	-1.355	42.791	1.00	14.35
ATOM	1005	CA	THR	A	143	10.552	-0.929	43.977	1.00	16.41
ATOM	1006	CB	THR	A	143	9.117	-0.509	43.638	1.00	23.66
ATOM	1007	OG1	THR	A	143	8.452	0.041	44.789	1.00	20.68
ATOM	1008	CG2	THR	A	143	8.267	-1.698	43.207	1.00	9.56
ATOM	1009	C	THR	A	143	10.561	-2.079	44.982	1.00	22.05
ATOM	1010	O	THR	A	143	10.851	-3.218	44.614	1.00	15.75
ATOM	1011	N	GLN	A	144	10.262	-1.792	46.241	1.00	15.62
ATOM	1012	CA	GLN	A	144	9.910	-2.851	47.187	1.00	19.93
ATOM	1013	CB	GLN	A	144	10.410	-2.626	48.609	1.00	17.14
ATOM	1014	CG	GLN	A	144	11.927	-2.605	48.704	1.00	20.52
ATOM	1015	CD	GLN	A	144	12.348	-2.080	50.072	1.00	35.53
ATOM	1016	OE1	GLN	A	144	12.254	-2.790	51.068	1.00	40.58
ATOM	1017	NE2	GLN	A	144	12.801	-0.835	50.111	1.00	40.58
ATOM	1018	C	GLN	A	144	8.384	-2.911	47.180	1.00	22.04
ATOM	1019	O	GLN	A	144	7.791	-1.911	46.762	1.00	16.80
ATOM	1020	N	CYS	A	145	7.844	-4.039	47.614	1.00	15.58
ATOM	1021	CA	CYS	A	145	6.417	-4.249	47.637	1.00	12.91
ATOM	1022	CB	CYS	A	145	6.103	-5.685	48.076	1.00	16.62
ATOM	1023	SG	CYS	A	145	6.632	-6.849	46.778	1.00	21.90
ATOM	1024	C	CYS	A	145	5.740	-3.273	48.598	1.00	16.44
ATOM	1025	O	CYS	A	145	4.638	-2.796	48.381	1.00	16.10
ATOM	1026	N	VAL	A	146	6.468	-3.025	49.680	1.00	17.59
ATOM	1027	CA	VAL	A	146	5.917	-2.095	50.680	1.00	20.28
ATOM	1028	CB	VAL	A	146	5.285	-2.784	51.889	1.00	22.74
ATOM	1029	CG1	VAL	A	146	4.932	-1.757	52.972	1.00	22.42
ATOM	1030	CG2	VAL	A	146	4.037	-3.548	51.478	1.00	22.17
ATOM	1031	C	VAL	A	146	7.070	-1.198	51.104	1.00	16.66
ATOM	1032	O	VAL	A	146	8.171	-1.704	51.357	1.00	18.81
ATOM	1033	N	GLU	A	147	6.824	0.111	51.141	1.00	13.43
ATOM	1034	CA	GLU	A	147	7.898	0.995	51.588	1.00	16.86
ATOM	1035	CB	GLU	A	147	8.417	1.873	50.447	1.00	21.49
ATOM	1036	CG	GLU	A	147	9.145	1.028	49.405	1.00	26.38
ATOM	1037	CD	GLU	A	147	9.550	1.808	48.172	1.00	37.10
ATOM	1038	OE1	GLU	A	147	9.453	3.051	48.188	1.00	32.89
ATOM	1039	OE2	GLU	A	147	9.980	1.139	47.206	1.00	27.53

**FIGURE 122**

ATOM	1040	C	GLU A 147	7.403	1.850	52.761	1.00	19.26
ATOM	1041	O	GLU A 147	6.402	2.535	52.577	1.00	27.69
ATOM	1042	N	LYS A 148	8.115	1.732	53.874	1.00	26.96
ATOM	1043	CA	LYS A 148	7.743	2.395	55.125	1.00	26.67
ATOM	1044	CB	LYS A 148	8.105	3.878	55.092	1.00	33.37
ATOM	1045	CG	LYS A 148	9.582	4.143	55.371	1.00	42.34
ATOM	1046	CD	LYS A 148	10.220	4.913	54.226	1.00	49.37
ATOM	1047	CE	LYS A 148	11.467	5.651	54.685	1.00	56.84
ATOM	1048	NZ	LYS A 148	11.213	7.114	54.810	1.00	51.81
ATOM	1049	C	LYS A 148	6.261	2.210	55.380	1.00	29.22
ATOM	1050	O	LYS A 148	5.510	3.102	55.771	1.00	34.85
ATOM	1051	N	GLY A 149	5.788	0.979	55.133	1.00	21.30
ATOM	1052	CA	GLY A 149	4.379	0.765	55.390	1.00	23.12
ATOM	1053	C	GLY A 149	3.451	1.142	54.264	1.00	28.88
ATOM	1054	O	GLY A 149	2.288	0.724	54.322	1.00	23.12
ATOM	1055	N	ARG A 150	3.892	1.910	53.264	1.00	23.43
ATOM	1056	CA	ARG A 150	2.967	2.235	52.172	1.00	19.35
ATOM	1057	CB	ARG A 150	3.237	3.651	51.657	1.00	27.51
ATOM	1058	CG	ARG A 150	3.022	4.689	52.755	1.00	36.85
ATOM	1059	CD	ARG A 150	3.433	6.085	52.332	1.00	46.96
ATOM	1060	NE	ARG A 150	4.879	6.252	52.377	1.00	54.45
ATOM	1061	CZ	ARG A 150	5.541	7.218	52.990	1.00	55.25
ATOM	1062	NH1	ARG A 150	4.899	8.166	53.652	1.00	47.81
ATOM	1063	NH2	ARG A 150	6.868	7.238	52.944	1.00	64.89
ATOM	1064	C	ARG A 150	3.097	1.201	51.060	1.00	17.74
ATOM	1065	O	ARG A 150	4.206	0.894	50.604	1.00	20.32
ATOM	1066	N	VAL A 151	1.980	0.628	50.655	1.00	18.03
ATOM	1067	CA	VAL A 151	1.948	-0.432	49.654	1.00	23.37
ATOM	1068	CB	VAL A 151	0.528	-1.030	49.571	1.00	28.77
ATOM	1069	CG1	VAL A 151	0.412	-2.015	48.412	1.00	18.49
ATOM	1070	CG2	VAL A 151	0.162	-1.691	50.895	1.00	20.07
ATOM	1071	C	VAL A 151	2.351	0.114	48.294	1.00	20.37
ATOM	1072	O	VAL A 151	1.847	1.164	47.899	1.00	19.29
ATOM	1073	N	LYS A 152	3.209	-0.566	47.557	1.00	18.81
ATOM	1074	CA	LYS A 152	3.673	-0.055	46.270	1.00	16.66
ATOM	1075	CB	LYS A 152	5.157	0.303	46.308	1.00	10.31
ATOM	1076	CG	LYS A 152	5.629	1.240	47.419	1.00	16.94
ATOM	1077	CD	LYS A 152	5.089	2.652	47.170	1.00	19.08
ATOM	1078	CE	LYS A 152	5.831	3.663	48.050	1.00	16.36
ATOM	1079	NZ	LYS A 152	5.565	5.051	47.592	1.00	31.76
ATOM	1080	C	LYS A 152	3.460	-1.111	45.189	1.00	18.63
ATOM	1081	O	LYS A 152	3.313	-0.808	44.006	1.00	14.72
ATOM	1082	N	CYS A 153	3.472	-2.381	45.605	1.00	10.99
ATOM	1083	CA	CYS A 153	3.426	-3.447	44.599	1.00	14.85
ATOM	1084	CB	CYS A 153	4.777	-3.577	43.886	1.00	10.33
ATOM	1085	SG	CYS A 153	4.784	-4.845	42.573	1.00	15.08
ATOM	1086	C	CYS A 153	3.025	-4.752	45.279	1.00	19.72
ATOM	1087	O	CYS A 153	3.429	-5.011	46.409	1.00	17.06
ATOM	1088	N	ASP A 154	2.207	-5.564	44.633	1.00	14.81
ATOM	1089	CA	ASP A 154	1.872	-6.852	45.241	1.00	15.17
ATOM	1090	CB	ASP A 154	0.662	-7.429	44.514	1.00	12.59
ATOM	1091	CG	ASP A 154	0.186	-8.745	45.101	1.00	24.42

**FIGURE 123**

ATOM	1092	OD1	ASP	A	154	0.232	-9.777	44.397	1.00	33.37
ATOM	1093	OD2	ASP	A	154	-0.223	-8.736	46.278	1.00	26.94
ATOM	1094	C	ASP	A	154	3.083	-7.782	45.165	1.00	21.36
ATOM	1095	O	ASP	A	154	3.914	-7.662	44.252	1.00	23.22
ATOM	1096	N	HIS	A	155	3.228	-8.717	46.091	1.00	15.03
ATOM	1097	CA	HIS	A	155	4.241	-9.766	46.046	1.00	19.74
ATOM	1098	CB	HIS	A	155	4.479	-10.390	47.434	1.00	18.44
ATOM	1099	CG	HIS	A	155	5.718	-11.249	47.473	1.00	16.91
ATOM	1100	ND1	HIS	A	155	5.772	-12.503	46.910	1.00	21.58
ATOM	1101	CE1	HIS	A	155	6.975	-13.028	47.088	1.00	15.22
ATOM	1102	NE2	HIS	A	155	7.719	-12.158	47.752	1.00	21.40
ATOM	1103	CD2	HIS	A	155	6.946	-11.046	47.997	1.00	13.16
ATOM	1104	C	HIS	A	155	3.765	-10.828	45.054	1.00	25.16
ATOM	1105	O	HIS	A	155	3.222	-11.863	45.434	1.00	22.33
ATOM	1106	N	TYR	A	156	3.935	-10.543	43.764	1.00	14.86
ATOM	1107	CA	TYR	A	156	3.238	-11.265	42.715	1.00	14.13
ATOM	1108	CB	TYR	A	156	3.055	-10.354	41.479	1.00	13.04
ATOM	1109	CG	TYR	A	156	4.342	-9.814	40.905	1.00	13.16
ATOM	1110	CD1	TYR	A	156	5.071	-10.496	39.932	1.00	10.49
ATOM	1111	CE1	TYR	A	156	6.239	-10.006	39.407	1.00	17.75
ATOM	1112	CZ	TYR	A	156	6.718	-8.786	39.842	1.00	15.46
ATOM	1113	OH	TYR	A	156	7.895	-8.286	39.320	1.00	14.59
ATOM	1114	CE2	TYR	A	156	6.021	-8.087	40.801	1.00	14.68
ATOM	1115	CD2	TYR	A	156	4.843	-8.585	41.331	1.00	12.40
ATOM	1116	C	TYR	A	156	3.959	-12.526	42.265	1.00	17.42
ATOM	1117	O	TYR	A	156	3.533	-13.067	41.242	1.00	15.62
ATOM	1118	N	TRP	A	157	4.994	-12.933	42.972	1.00	21.73
ATOM	1119	CA	TRP	A	157	5.722	-14.154	42.677	1.00	16.38
ATOM	1120	CB	TRP	A	157	7.152	-13.878	42.223	1.00	14.65
ATOM	1121	CG	TRP	A	157	7.993	-13.290	43.317	1.00	20.93
ATOM	1122	CD1	TRP	A	157	8.817	-13.924	44.200	1.00	19.30
ATOM	1123	NE1	TRP	A	157	9.401	-13.009	45.041	1.00	18.29
ATOM	1124	CE2	TRP	A	157	8.956	-11.758	44.703	1.00	20.37
ATOM	1125	CD2	TRP	A	157	8.070	-11.895	43.622	1.00	12.37
ATOM	1126	CE3	TRP	A	157	7.469	-10.759	43.083	1.00	15.46
ATOM	1127	CZ3	TRP	A	157	7.772	-9.522	43.635	1.00	13.34
ATOM	1128	CH2	TRP	A	157	8.657	-9.418	44.709	1.00	18.59
ATOM	1129	CZ2	TRP	A	157	9.262	-10.519	45.259	1.00	21.33
ATOM	1130	C	TRP	A	157	5.728	-15.029	43.926	1.00	30.00
ATOM	1131	O	TRP	A	157	5.456	-14.475	44.994	1.00	24.21
ATOM	1132	N	PRO	A	158	6.007	-16.316	43.798	1.00	29.81
ATOM	1133	CA	PRO	A	158	6.016	-17.206	44.965	1.00	32.16
ATOM	1134	CB	PRO	A	158	6.531	-18.527	44.371	1.00	30.44
ATOM	1135	CG	PRO	A	158	6.069	-18.476	42.946	1.00	26.74
ATOM	1136	CD	PRO	A	158	6.307	-17.040	42.542	1.00	22.30
ATOM	1137	C	PRO	A	158	6.961	-16.803	46.089	1.00	29.52
ATOM	1138	O	PRO	A	158	8.088	-16.362	45.866	1.00	43.48
ATOM	1139	N	ALA	A	159	6.502	-16.986	47.322	1.00	34.03
ATOM	1140	CA	ALA	A	159	7.303	-16.748	48.519	1.00	33.58
ATOM	1141	CB	ALA	A	159	6.444	-16.986	49.760	1.00	34.30
ATOM	1142	C	ALA	A	159	8.547	-17.621	48.576	1.00	32.85
ATOM	1143	O	ALA	A	159	9.602	-17.201	49.045	1.00	40.76

FIGURE 124



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ATOM	1144	N	ASP	A	160	8.427	-18.858	48.101	1.00	29.96
ATOM	1145	CA	ASP	A	160	9.520	-19.826	48.164	1.00	28.99
ATOM	1146	CB	ASP	A	160	9.468	-20.587	49.485	1.00	27.85
ATOM	1147	CG	ASP	A	160	8.150	-21.298	49.727	1.00	33.73
ATOM	1148	OD1	ASP	A	160	7.767	-21.452	50.910	1.00	36.35
ATOM	1149	OD2	ASP	A	160	7.486	-21.709	48.750	1.00	38.51
ATOM	1150	C	ASP	A	160	9.449	-20.784	46.983	1.00	24.92
ATOM	1151	O	ASP	A	160	8.857	-20.443	45.951	1.00	29.16
ATOM	1152	N	GLN	A	161	10.025	-21.975	47.125	1.00	19.70
ATOM	1153	CA	GLN	A	161	10.089	-22.904	46.006	1.00	29.75
ATOM	1154	CB	GLN	A	161	11.241	-23.901	46.254	1.00	33.52
ATOM	1155	CG	GLN	A	161	12.575	-23.383	45.720	1.00	41.43
ATOM	1156	CD	GLN	A	161	13.754	-23.856	46.547	1.00	53.65
ATOM	1157	OE1	GLN	A	161	14.390	-24.865	46.229	1.00	54.16
ATOM	1158	NE2	GLN	A	161	14.053	-23.128	47.619	1.00	75.55
ATOM	1159	C	GLN	A	161	8.798	-23.664	45.760	1.00	32.87
ATOM	1160	O	GLN	A	161	8.730	-24.481	44.833	1.00	27.15
ATOM	1161	N	ASP	A	162	7.759	-23.443	46.559	1.00	32.19
ATOM	1162	CA	ASP	A	162	6.508	-24.162	46.313	1.00	25.87
ATOM	1163	CB	ASP	A	162	5.547	-24.078	47.488	1.00	27.76
ATOM	1164	CG	ASP	A	162	5.916	-24.971	48.652	1.00	40.60
ATOM	1165	OD1	ASP	A	162	7.006	-25.582	48.628	1.00	39.74
ATOM	1166	OD2	ASP	A	162	5.099	-25.049	49.598	1.00	66.88
ATOM	1167	C	ASP	A	162	5.855	-23.557	45.072	1.00	29.94
ATOM	1168	O	ASP	A	162	5.977	-22.348	44.880	1.00	36.10
ATOM	1169	N	SER	A	163	5.201	-24.359	44.249	1.00	23.42
ATOM	1170	CA	SER	A	163	4.656	-23.839	42.997	1.00	21.05
ATOM	1171	CB	SER	A	163	4.556	-24.994	41.988	1.00	26.60
ATOM	1172	OG	SER	A	163	3.896	-26.074	42.630	1.00	25.84
ATOM	1173	C	SER	A	163	3.306	-23.190	43.194	1.00	17.83
ATOM	1174	O	SER	A	163	2.600	-23.381	44.183	1.00	21.12
ATOM	1175	N	LEU	A	164	2.909	-22.379	42.208	1.00	22.53
ATOM	1176	CA	LEU	A	164	1.618	-21.708	42.296	1.00	17.81
ATOM	1177	CB	LEU	A	164	1.770	-20.333	42.942	1.00	22.42
ATOM	1178	CG	LEU	A	164	1.717	-20.210	44.457	1.00	30.71
ATOM	1179	CD1	LEU	A	164	1.783	-18.736	44.854	1.00	38.32
ATOM	1180	CD2	LEU	A	164	0.464	-20.862	45.021	1.00	31.30
ATOM	1181	C	LEU	A	164	1.042	-21.526	40.897	1.00	16.82
ATOM	1182	O	LEU	A	164	1.843	-21.285	39.990	1.00	20.87
ATOM	1183	N	TYR	A	165	-0.269	-21.616	40.758	1.00	15.24
ATOM	1184	CA	TYR	A	165	-0.942	-21.169	39.550	1.00	22.53
ATOM	1185	CB	TYR	A	165	-2.365	-21.741	39.489	1.00	16.95
ATOM	1186	CG	TYR	A	165	-2.417	-23.194	39.073	1.00	20.26
ATOM	1187	CD1	TYR	A	165	-2.541	-24.180	40.038	1.00	15.27
ATOM	1188	CE1	TYR	A	165	-2.593	-25.515	39.711	1.00	15.03
ATOM	1189	CZ	TYR	A	165	-2.522	-25.882	38.390	1.00	19.11
ATOM	1190	OH	TYR	A	165	-2.579	-27.227	38.066	1.00	25.32
ATOM	1191	CE2	TYR	A	165	-2.402	-24.928	37.410	1.00	19.58
ATOM	1192	CD2	TYR	A	165	-2.348	-23.582	37.740	1.00	25.42
ATOM	1193	C	TYR	A	165	-1.076	-19.646	39.464	1.00	25.11
ATOM	1194	O	TYR	A	165	-1.337	-18.969	40.459	1.00	19.81
ATOM	1195	N	TYR	A	166	-0.938	-19.095	38.264	1.00	18.82

**FIGURE 125**

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ATOM	1196	CA	TYR	A	166	-1.373	-17.719	38.014	1.00	23.86
ATOM	1197	CB	TYR	A	166	-0.202	-16.754	37.949	1.00	25.11
ATOM	1198	CG	TYR	A	166	0.652	-16.636	39.182	1.00	17.66
ATOM	1199	CD1	TYR	A	166	0.365	-15.669	40.134	1.00	17.33
ATOM	1200	CE1	TYR	A	166	1.133	-15.541	41.265	1.00	20.35
ATOM	1201	CZ	TYR	A	166	2.205	-16.369	41.485	1.00	26.41
ATOM	1202	OH	TYR	A	166	2.943	-16.198	42.636	1.00	24.80
ATOM	1203	CE2	TYR	A	166	2.521	-17.338	40.561	1.00	24.56
ATOM	1204	CD2	TYR	A	166	1.738	-17.457	39.421	1.00	19.47
ATOM	1205	C	TYR	A	166	-2.168	-17.720	36.706	1.00	15.43
ATOM	1206	O	TYR	A	166	-1.541	-17.809	35.655	1.00	16.56
ATOM	1207	N	GLY	A	167	-3.474	-17.641	36.810	1.00	17.70
ATOM	1208	CA	GLY	A	167	-4.449	-17.953	35.792	1.00	24.28
ATOM	1209	C	GLY	A	167	-4.211	-19.347	35.220	1.00	31.57
ATOM	1210	O	GLY	A	167	-4.329	-20.338	35.943	1.00	28.31
ATOM	1211	N	ASP	A	168	-3.856	-19.435	33.943	1.00	24.61
ATOM	1212	CA	ASP	A	168	-3.616	-20.695	33.265	1.00	28.49
ATOM	1213	CB	ASP	A	168	-4.089	-20.622	31.802	1.00	29.53
ATOM	1214	CG	ASP	A	168	-5.587	-20.382	31.765	1.00	33.69
ATOM	1215	OD1	ASP	A	168	-6.283	-21.001	32.589	1.00	33.30
ATOM	1216	OD2	ASP	A	168	-6.063	-19.582	30.947	1.00	43.14
ATOM	1217	C	ASP	A	168	-2.152	-21.097	33.273	1.00	28.68
ATOM	1218	O	ASP	A	168	-1.802	-22.113	32.667	1.00	34.81
ATOM	1219	N	LEU	A	169	-1.310	-20.309	33.937	1.00	22.13
ATOM	1220	CA	LEU	A	169	0.109	-20.623	33.989	1.00	18.47
ATOM	1221	CB	LEU	A	169	0.958	-19.356	33.795	1.00	21.38
ATOM	1222	CG	LEU	A	169	0.732	-18.594	32.489	1.00	25.30
ATOM	1223	CD1	LEU	A	169	1.565	-17.313	32.456	1.00	21.42
ATOM	1224	CD2	LEU	A	169	1.043	-19.474	31.290	1.00	27.51
ATOM	1225	C	LEU	A	169	0.470	-21.268	35.322	1.00	19.04
ATOM	1226	O	LEU	A	169	-0.213	-21.003	36.309	1.00	21.82
ATOM	1227	N	ILE	A	170	1.516	-22.084	35.337	1.00	20.12
ATOM	1228	CA	ILE	A	170	2.068	-22.592	36.587	1.00	21.11
ATOM	1229	CB	ILE	A	170	2.138	-24.120	36.675	1.00	20.24
ATOM	1230	CG1	ILE	A	170	0.783	-24.795	36.514	1.00	27.42
ATOM	1231	CD1	ILE	A	170	0.840	-26.292	36.777	1.00	29.31
ATOM	1232	CG2	ILE	A	170	2.804	-24.547	37.980	1.00	23.61
ATOM	1233	C	ILE	A	170	3.478	-22.031	36.736	1.00	20.55
ATOM	1234	O	ILE	A	170	4.251	-22.062	35.786	1.00	28.78
ATOM	1235	N	LEU	A	171	3.763	-21.531	37.926	1.00	22.31
ATOM	1236	CA	LEU	A	171	5.044	-20.881	38.181	1.00	24.43
ATOM	1237	CB	LEU	A	171	4.758	-19.393	38.433	1.00	27.91
ATOM	1238	CG	LEU	A	171	5.910	-18.408	38.278	1.00	37.79
ATOM	1239	CD1	LEU	A	171	5.400	-17.017	37.942	1.00	44.63
ATOM	1240	CD2	LEU	A	171	6.747	-18.374	39.551	1.00	34.65
ATOM	1241	C	LEU	A	171	5.774	-21.519	39.352	1.00	19.86
ATOM	1242	O	LEU	A	171	5.179	-21.847	40.382	1.00	20.05
ATOM	1243	N	GLN	A	172	7.077	-21.692	39.203	1.00	21.32
ATOM	1244	CA	GLN	A	172	7.936	-22.247	40.234	1.00	29.54
ATOM	1245	CB	GLN	A	172	8.315	-23.689	39.862	1.00	43.33
ATOM	1246	CG	GLN	A	172	7.514	-24.770	40.555	1.00	53.47
ATOM	1247	CD	GLN	A	172	8.301	-26.042	40.814	1.00	63.05

**FIGURE 126**

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ATOM	1248	OE1	GLN	A	172	9.068	-26.503	39.964	1.00	39.02
ATOM	1249	NE2	GLN	A	172	8.114	-26.624	41.998	1.00	64.69
ATOM	1250	C	GLN	A	172	9.211	-21.440	40.411	1.00	19.61
ATOM	1251	O	GLN	A	172	9.974	-21.265	39.457	1.00	19.10
ATOM	1252	N	MET	A	173	9.497	-20.971	41.628	1.00	16.88
ATOM	1253	CA	MET	A	173	10.792	-20.353	41.863	1.00	19.35
ATOM	1254	CB	MET	A	173	10.808	-19.485	43.130	1.00	24.60
ATOM	1255	CG	MET	A	173	12.118	-18.710	43.277	1.00	27.16
ATOM	1256	SD	MET	A	173	11.885	-17.267	44.349	1.00	39.15
ATOM	1257	CE	MET	A	173	11.807	-18.102	45.934	1.00	35.39
ATOM	1258	C	MET	A	173	11.914	-21.384	42.027	1.00	24.07
ATOM	1259	O	MET	A	173	11.953	-22.072	43.043	1.00	31.47
ATOM	1260	N	LEU	A	174	12.782	-21.438	41.036	1.00	23.52
ATOM	1261	CA	LEU	A	174	13.945	-22.311	40.998	1.00	33.03
ATOM	1262	CB	LEU	A	174	14.403	-22.478	39.543	1.00	27.30
ATOM	1263	CG	LEU	A	174	13.369	-23.075	38.590	1.00	32.33
ATOM	1264	CD1	LEU	A	174	14.023	-23.477	37.276	1.00	44.31
ATOM	1265	CD2	LEU	A	174	12.665	-24.270	39.214	1.00	40.73
ATOM	1266	C	LEU	A	174	15.096	-21.796	41.841	1.00	33.13
ATOM	1267	O	LEU	A	174	15.857	-22.565	42.431	1.00	36.31
ATOM	1268	N	SER	A	175	15.271	-20.475	41.923	1.00	32.25
ATOM	1269	CA	SER	A	175	16.386	-19.961	42.712	1.00	28.55
ATOM	1270	CB	SER	A	175	17.696	-20.148	41.952	1.00	36.29
ATOM	1271	OG	SER	A	175	17.775	-19.299	40.825	1.00	30.88
ATOM	1272	C	SER	A	175	16.199	-18.488	43.069	1.00	34.24
ATOM	1273	O	SER	A	175	15.445	-17.778	42.404	1.00	23.93
ATOM	1274	N	GLU	A	176	16.909	-18.101	44.118	1.00	24.79
ATOM	1275	CA	GLU	A	176	16.841	-16.777	44.717	1.00	24.84
ATOM	1276	CB	GLU	A	176	15.678	-16.730	45.704	1.00	29.85
ATOM	1277	CG	GLU	A	176	15.447	-15.387	46.377	1.00	32.22
ATOM	1278	CD	GLU	A	176	14.223	-15.390	47.270	1.00	34.82
ATOM	1279	OE1	GLU	A	176	14.358	-15.795	48.447	1.00	50.78
ATOM	1280	OE2	GLU	A	176	13.135	-14.988	46.806	1.00	39.74
ATOM	1281	C	GLU	A	176	18.166	-16.441	45.398	1.00	35.34
ATOM	1282	O	GLU	A	176	18.519	-17.072	46.397	1.00	33.01
ATOM	1283	N	SER	A	177	18.884	-15.477	44.837	1.00	29.77
ATOM	1284	CA	SER	A	177	20.151	-14.997	45.367	1.00	25.28
ATOM	1285	CB	SER	A	177	21.299	-15.094	44.377	1.00	27.96
ATOM	1286	OG	SER	A	177	21.253	-16.278	43.606	1.00	51.47
ATOM	1287	C	SER	A	177	20.003	-13.547	45.831	1.00	30.74
ATOM	1288	O	SER	A	177	19.856	-12.591	45.070	1.00	23.11
ATOM	1289	N	VAL	A	178	20.042	-13.454	47.153	1.00	31.26
ATOM	1290	CA	VAL	A	178	19.964	-12.168	47.825	1.00	31.69
ATOM	1291	CB	VAL	A	178	19.343	-12.317	49.218	1.00	34.41
ATOM	1292	CG1	VAL	A	178	19.192	-10.964	49.903	1.00	48.17
ATOM	1293	CG2	VAL	A	178	17.989	-13.008	49.117	1.00	26.99
ATOM	1294	C	VAL	A	178	21.367	-11.579	47.885	1.00	39.05
ATOM	1295	O	VAL	A	178	22.306	-12.239	48.333	1.00	45.15
ATOM	1296	N	LEU	A	179	21.484	-10.351	47.400	1.00	29.28
ATOM	1297	CA	LEU	A	179	22.713	-9.567	47.511	1.00	24.54
ATOM	1298	CB	LEU	A	179	23.278	-9.294	46.122	1.00	27.13
ATOM	1299	CG	LEU	A	179	23.427	-10.559	45.262	1.00	39.41

**FIGURE 127**

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ATOM	1300	CD1	LEU	A	179	23.571	-10.210	43.793	1.00	56.70
ATOM	1301	CD2	LEU	A	179	24.604	-11.381	45.760	1.00	42.38
ATOM	1302	C	LEU	A	179	22.370	-8.317	48.298	1.00	32.59
ATOM	1303	O	LEU	A	179	21.180	-8.081	48.548	1.00	37.75
ATOM	1304	N	PRO	A	180	23.330	-7.522	48.737	1.00	39.11
ATOM	1305	CA	PRO	A	180	22.960	-6.390	49.597	1.00	42.52
ATOM	1306	CB	PRO	A	180	24.299	-5.699	49.872	1.00	48.91
ATOM	1307	CG	PRO	A	180	25.323	-6.759	49.636	1.00	51.16
ATOM	1308	CD	PRO	A	180	24.778	-7.596	48.511	1.00	44.82
ATOM	1309	C	PRO	A	180	22.012	-5.425	48.910	1.00	35.13
ATOM	1310	O	PRO	A	180	21.144	-4.829	49.553	1.00	43.71
ATOM	1311	N	GLU	A	181	22.138	-5.225	47.594	1.00	25.87
ATOM	1312	CA	GLU	A	181	21.282	-4.161	47.054	1.00	26.32
ATOM	1313	CB	GLU	A	181	22.162	-3.079	46.420	1.00	29.01
ATOM	1314	CG	GLU	A	181	22.810	-2.178	47.465	1.00	30.02
ATOM	1315	CD	GLU	A	181	24.001	-1.472	46.840	1.00	32.75
ATOM	1316	OE1	GLU	A	181	24.714	-2.135	46.060	1.00	55.04
ATOM	1317	OE2	GLU	A	181	24.190	-0.279	47.144	1.00	78.18
ATOM	1318	C	GLU	A	181	20.279	-4.658	46.035	1.00	19.68
ATOM	1319	O	GLU	A	181	19.432	-3.890	45.579	1.00	22.96
ATOM	1320	N	TRP	A	182	20.393	-5.937	45.683	1.00	23.62
ATOM	1321	CA	TRP	A	182	19.378	-6.504	44.799	1.00	20.73
ATOM	1322	CB	TRP	A	182	19.626	-6.134	43.344	1.00	22.35
ATOM	1323	CG	TRP	A	182	21.019	-6.447	42.864	1.00	21.68
ATOM	1324	CD1	TRP	A	182	21.493	-7.660	42.455	1.00	20.02
ATOM	1325	NE1	TRP	A	182	22.813	-7.552	42.089	1.00	24.79
ATOM	1326	CE2	TRP	A	182	23.214	-6.252	42.256	1.00	33.15
ATOM	1327	CD2	TRP	A	182	22.107	-5.528	42.743	1.00	28.28
ATOM	1328	CE3	TRP	A	182	22.241	-4.160	43.006	1.00	26.77
ATOM	1329	CZ3	TRP	A	182	23.476	-3.579	42.767	1.00	34.39
ATOM	1330	CH2	TRP	A	182	24.560	-4.324	42.281	1.00	31.42
ATOM	1331	CZ2	TRP	A	182	24.460	-5.664	42.018	1.00	30.61
ATOM	1332	C	TRP	A	182	19.349	-8.017	44.977	1.00	23.48
ATOM	1333	O	TRP	A	182	20.281	-8.619	45.513	1.00	24.37
ATOM	1334	N	THR	A	183	18.240	-8.569	44.517	1.00	20.84
ATOM	1335	CA	THR	A	183	17.987	-10.000	44.561	1.00	22.33
ATOM	1336	CB	THR	A	183	16.773	-10.266	45.471	1.00	20.04
ATOM	1337	OG1	THR	A	183	17.130	-9.789	46.776	1.00	26.68
ATOM	1338	CG2	THR	A	183	16.466	-11.751	45.577	1.00	20.82
ATOM	1339	C	THR	A	183	17.725	-10.538	43.168	1.00	26.38
ATOM	1340	O	THR	A	183	16.949	-9.925	42.429	1.00	23.46
ATOM	1341	N	ILE	A	184	18.351	-11.655	42.819	1.00	16.60
ATOM	1342	CA	ILE	A	184	18.094	-12.248	41.505	1.00	14.97
ATOM	1343	CB	ILE	A	184	19.399	-12.402	40.716	1.00	20.49
ATOM	1344	CG1	ILE	A	184	20.113	-11.053	40.565	1.00	22.48
ATOM	1345	CD1	ILE	A	184	21.400	-11.102	39.778	1.00	24.88
ATOM	1346	CG2	ILE	A	184	19.181	-13.048	39.360	1.00	15.87
ATOM	1347	C	ILE	A	184	17.374	-13.570	41.711	1.00	19.06
ATOM	1348	O	ILE	A	184	17.874	-14.392	42.481	1.00	22.71
ATOM	1349	N	ARG	A	185	16.228	-13.724	41.066	1.00	17.97
ATOM	1350	CA	ARG	A	185	15.419	-14.931	41.157	1.00	18.52
ATOM	1351	CB	ARG	A	185	14.031	-14.667	41.733	1.00	15.90

**FIGURE 128**

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ATOM	1352	CG	ARG	A	185	14.102	-14.003	43.105	1.00	20.67
ATOM	1353	CD	ARG	A	185	12.739	-13.580	43.574	1.00	23.49
ATOM	1354	NE	ARG	A	185	12.620	-13.167	44.962	1.00	21.66
ATOM	1355	CZ	ARG	A	185	12.709	-11.898	45.350	1.00	25.33
ATOM	1356	NH1	ARG	A	185	12.934	-10.945	44.455	1.00	22.07
ATOM	1357	NH2	ARG	A	185	12.581	-11.547	46.624	1.00	27.50
ATOM	1358	C	ARG	A	185	15.285	-15.562	39.776	1.00	22.74
ATOM	1359	O	ARG	A	185	15.369	-14.866	38.768	1.00	20.98
ATOM	1360	N	GLU	A	186	15.113	-16.874	39.766	1.00	23.54
ATOM	1361	CA	GLU	A	186	14.810	-17.562	38.512	1.00	27.25
ATOM	1362	CB	GLU	A	186	15.910	-18.545	38.151	1.00	26.23
ATOM	1363	CG	GLU	A	186	16.337	-18.573	36.696	1.00	29.12
ATOM	1364	CD	GLU	A	186	17.731	-19.181	36.591	1.00	39.66
ATOM	1365	OE1	GLU	A	186	18.272	-19.548	37.660	1.00	56.70
ATOM	1366	OE2	GLU	A	186	18.262	-19.282	35.470	1.00	48.51
ATOM	1367	C	GLU	A	186	13.463	-18.273	38.668	1.00	22.29
ATOM	1368	O	GLU	A	186	13.280	-18.945	39.685	1.00	18.10
ATOM	1369	N	PHE	A	187	12.578	-18.097	37.695	1.00	18.63
ATOM	1370	CA	PHE	A	187	11.303	-18.785	37.643	1.00	16.57
ATOM	1371	CB	PHE	A	187	10.106	-17.835	37.663	1.00	17.31
ATOM	1372	CG	PHE	A	187	10.225	-16.820	38.799	1.00	28.29
ATOM	1373	CD1	PHE	A	187	10.561	-15.507	38.521	1.00	35.36
ATOM	1374	CE1	PHE	A	187	10.660	-14.575	39.550	1.00	25.40
ATOM	1375	CZ	PHE	A	187	10.448	-14.987	40.849	1.00	21.30
ATOM	1376	CE2	PHE	A	187	10.104	-16.285	41.143	1.00	18.72
ATOM	1377	CD2	PHE	A	187	9.991	-17.207	40.113	1.00	25.67
ATOM	1378	C	PHE	A	187	11.210	-19.663	36.381	1.00	26.48
ATOM	1379	O	PHE	A	187	11.754	-19.296	35.347	1.00	22.46
ATOM	1380	N	LYS	A	188	10.530	-20.777	36.559	1.00	27.77
ATOM	1381	CA	LYS	A	188	10.122	-21.741	35.559	1.00	29.70
ATOM	1382	CB	LYS	A	188	10.530	-23.158	35.948	1.00	39.93
ATOM	1383	CG	LYS	A	188	9.420	-24.194	35.867	1.00	49.03
ATOM	1384	CD	LYS	A	188	9.938	-25.587	36.210	1.00	53.96
ATOM	1385	CE	LYS	A	188	8.835	-26.451	36.802	1.00	55.37
ATOM	1386	NZ	LYS	A	188	8.767	-27.803	36.178	1.00	45.26
ATOM	1387	C	LYS	A	188	8.603	-21.640	35.400	1.00	23.00
ATOM	1388	O	LYS	A	188	7.888	-21.828	36.378	1.00	26.46
ATOM	1389	N	ILE	A	189	8.132	-21.324	34.203	1.00	23.28
ATOM	1390	CA	ILE	A	189	6.734	-21.106	33.898	1.00	25.13
ATOM	1391	CB	ILE	A	189	6.489	-19.717	33.278	1.00	37.23
ATOM	1392	CG1	ILE	A	189	6.899	-18.538	34.159	1.00	42.70
ATOM	1393	CD1	ILE	A	189	6.097	-17.286	33.840	1.00	58.33
ATOM	1394	CG2	ILE	A	189	5.029	-19.569	32.866	1.00	42.16
ATOM	1395	C	ILE	A	189	6.228	-22.144	32.895	1.00	28.65
ATOM	1396	O	ILE	A	189	6.897	-22.279	31.869	1.00	28.97
ATOM	1397	N	CYS	A	190	5.129	-22.799	33.219	1.00	28.96
ATOM	1398	CA	CYS	A	190	4.509	-23.828	32.396	1.00	35.44
ATOM	1399	CB	CYS	A	190	4.306	-25.127	33.185	1.00	38.00
ATOM	1400	SG	CYS	A	190	5.768	-25.627	34.128	1.00	68.71
ATOM	1401	C	CYS	A	190	3.178	-23.331	31.836	1.00	40.13
ATOM	1402	O	CYS	A	190	2.263	-22.985	32.586	1.00	32.30
ATOM	1403	N	GLY	A	191	3.122	-23.308	30.510	1.00	37.25

**FIGURE 129**

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ATOM	1404	CA	GLY A 191	2.017	-22.800	29.737	1.00	41.56
ATOM	1405	C	GLY A 191	1.357	-23.872	28.890	1.00	48.56
ATOM	1406	O	GLY A 191	1.577	-25.066	29.095	1.00	45.07
ATOM	1407	N	GLU A 192	0.549	-23.428	27.936	1.00	54.18
ATOM	1408	CA	GLU A 192	-0.200	-24.305	27.048	1.00	69.22
ATOM	1409	CB	GLU A 192	-1.434	-23.566	26.522	1.00	74.04
ATOM	1410	CG	GLU A 192	-2.761	-24.220	26.866	1.00	80.18
ATOM	1411	CD	GLU A 192	-3.579	-23.505	27.916	1.00	81.21
ATOM	1412	OE1	GLU A 192	-3.733	-24.045	29.033	1.00	64.52
ATOM	1413	OE2	GLU A 192	-4.092	-22.396	27.649	1.00	98.21
ATOM	1414	C	GLU A 192	0.670	-24.817	25.901	1.00	77.66
ATOM	1415	O	GLU A 192	0.153	-25.106	24.821	1.00	91.62
ATOM	1416	N	GLU A 193	1.963	-24.929	26.155	1.00	83.58
ATOM	1417	CA	GLU A 193	3.011	-25.361	25.250	1.00	93.54
ATOM	1418	CB	GLU A 193	2.953	-26.877	25.035	1.00	96.89
ATOM	1419	CG	GLU A 193	4.249	-27.604	25.348	1.00	98.33
ATOM	1420	CD	GLU A 193	4.432	-28.893	24.572	1.00	96.49
ATOM	1421	OE1	GLU A 193	3.518	-29.278	23.811	1.00	93.16
ATOM	1422	OE2	GLU A 193	5.494	-29.536	24.722	1.00	88.57
ATOM	1423	C	GLU A 193	2.918	-24.636	23.910	1.00	99.98
ATOM	1424	O	GLU A 193	2.701	-25.271	22.877	1.00	108.24
ATOM	1425	N	GLN A 194	3.077	-23.317	23.931	1.00	102.55
ATOM	1426	CA	GLN A 194	2.938	-22.499	22.728	1.00	105.80
ATOM	1427	CB	GLN A 194	2.358	-21.129	23.088	1.00	108.21
ATOM	1428	CG	GLN A 194	0.857	-21.133	23.330	1.00	106.39
ATOM	1429	CD	GLN A 194	0.501	-21.310	24.793	1.00	103.56
ATOM	1430	OE1	GLN A 194	1.330	-21.724	25.602	1.00	98.95
ATOM	1431	NE2	GLN A 194	-0.741	-20.994	25.143	1.00	99.79
ATOM	1432	C	GLN A 194	4.267	-22.341	21.999	1.00	105.62
ATOM	1433	O	GLN A 194	4.998	-23.324	21.847	1.00	116.12
ATOM	1434	N	LEU A 195	4.582	-21.125	21.553	1.00	101.17
ATOM	1435	CA	LEU A 195	5.860	-20.881	20.883	1.00	95.89
ATOM	1436	CB	LEU A 195	6.034	-19.411	20.507	1.00	88.27
ATOM	1437	CG	LEU A 195	6.093	-19.063	19.016	1.00	76.59
ATOM	1438	CD1	LEU A 195	6.613	-17.648	18.786	1.00	35.43
ATOM	1439	CD2	LEU A 195	6.948	-20.068	18.254	1.00	62.06
ATOM	1440	C	LEU A 195	7.001	-21.372	21.776	1.00	95.74
ATOM	1441	O	LEU A 195	8.005	-21.890	21.287	1.00	104.53
ATOM	1442	N	ASP A 196	6.831	-21.227	23.085	1.00	93.29
ATOM	1443	CA	ASP A 196	7.763	-21.771	24.069	1.00	89.45
ATOM	1444	CB	ASP A 196	8.450	-20.660	24.857	1.00	83.52
ATOM	1445	CG	ASP A 196	7.556	-19.912	25.817	1.00	71.43
ATOM	1446	OD1	ASP A 196	6.442	-19.474	25.450	1.00	46.66
ATOM	1447	OD2	ASP A 196	7.964	-19.724	26.984	1.00	45.20
ATOM	1448	C	ASP A 196	7.029	-22.731	25.002	1.00	89.72
ATOM	1449	O	ASP A 196	5.897	-22.456	25.409	1.00	82.68
ATOM	1450	N	ALA A 197	7.657	-23.857	25.335	1.00	93.55
ATOM	1451	CA	ALA A 197	7.020	-24.842	26.208	1.00	94.35
ATOM	1452	CB	ALA A 197	7.240	-26.255	25.691	1.00	80.84
ATOM	1453	C	ALA A 197	7.520	-24.718	27.644	1.00	94.80
ATOM	1454	O	ALA A 197	6.712	-24.641	28.574	1.00	92.09
ATOM	1455	N	HIS A 198	8.839	-24.700	27.838	1.00	92.53

**FIGURE 130**

ATOM	1456	CA	HIS	A	198	9.370	-24.519	29.182	1.00	88.28
ATOM	1457	CB	HIS	A	198	10.131	-25.748	29.703	1.00	89.87
ATOM	1458	CG	HIS	A	198	10.859	-25.377	30.967	1.00	91.21
ATOM	1459	ND1	HIS	A	198	10.190	-24.902	32.073	1.00	94.03
ATOM	1460	CE1	HIS	A	198	11.057	-24.649	33.038	1.00	94.08
ATOM	1461	NE2	HIS	A	198	12.268	-24.939	32.593	1.00	94.64
ATOM	1462	CD2	HIS	A	198	12.167	-25.392	31.299	1.00	92.48
ATOM	1463	C	HIS	A	198	10.316	-23.322	29.267	1.00	77.76
ATOM	1464	O	HIS	A	198	11.500	-23.417	28.954	1.00	88.55
ATOM	1465	N	ARG	A	199	9.769	-22.197	29.709	1.00	65.70
ATOM	1466	CA	ARG	A	199	10.523	-20.957	29.782	1.00	47.47
ATOM	1467	CB	ARG	A	199	9.612	-19.780	29.400	1.00	44.67
ATOM	1468	CG	ARG	A	199	10.165	-18.453	29.889	1.00	53.42
ATOM	1469	CD	ARG	A	199	9.994	-17.331	28.879	1.00	46.83
ATOM	1470	NE	ARG	A	199	8.914	-17.624	27.941	1.00	46.19
ATOM	1471	CZ	ARG	A	199	7.852	-16.844	27.777	1.00	51.98
ATOM	1472	NH1	ARG	A	199	7.744	-15.728	28.495	1.00	21.30
ATOM	1473	NH2	ARG	A	199	6.920	-17.196	26.901	1.00	32.81
ATOM	1474	C	ARG	A	199	11.133	-20.718	31.161	1.00	32.26
ATOM	1475	O	ARG	A	199	10.541	-21.045	32.190	1.00	25.30
ATOM	1476	N	LEU	A	200	12.327	-20.133	31.142	1.00	25.66
ATOM	1477	CA	LEU	A	200	13.010	-19.678	32.340	1.00	25.37
ATOM	1478	CB	LEU	A	200	14.414	-20.256	32.468	1.00	37.98
ATOM	1479	CG	LEU	A	200	14.511	-21.782	32.585	1.00	50.45
ATOM	1480	CD1	LEU	A	200	15.956	-22.239	32.447	1.00	66.02
ATOM	1481	CD2	LEU	A	200	13.911	-22.270	33.899	1.00	46.72
ATOM	1482	C	LEU	A	200	13.058	-18.146	32.323	1.00	26.91
ATOM	1483	O	LEU	A	200	13.521	-17.544	31.358	1.00	22.85
ATOM	1484	N	ILE	A	201	12.549	-17.552	33.391	1.00	23.54
ATOM	1485	CA	ILE	A	201	12.463	-16.102	33.528	1.00	16.69
ATOM	1486	CB	ILE	A	201	11.023	-15.688	33.897	1.00	18.39
ATOM	1487	CG1	ILE	A	201	9.983	-16.468	33.096	1.00	32.11
ATOM	1488	CD1	ILE	A	201	9.613	-15.818	31.788	1.00	38.11
ATOM	1489	CG2	ILE	A	201	10.814	-14.183	33.790	1.00	26.56
ATOM	1490	C	ILE	A	201	13.394	-15.625	34.626	1.00	17.67
ATOM	1491	O	ILE	A	201	13.380	-16.158	35.732	1.00	23.89
ATOM	1492	N	ARG	A	202	14.218	-14.617	34.353	1.00	16.91
ATOM	1493	CA	ARG	A	202	15.020	-14.076	35.443	1.00	13.64
ATOM	1494	CB	ARG	A	202	16.465	-13.807	35.065	1.00	20.15
ATOM	1495	CG	ARG	A	202	17.322	-15.053	34.928	1.00	33.93
ATOM	1496	CD	ARG	A	202	18.698	-14.896	35.558	1.00	44.89
ATOM	1497	NE	ARG	A	202	19.494	-16.112	35.342	1.00	57.70
ATOM	1498	CZ	ARG	A	202	19.879	-16.510	34.134	1.00	61.66
ATOM	1499	NH1	ARG	A	202	19.549	-15.798	33.063	1.00	39.90
ATOM	1500	NH2	ARG	A	202	20.596	-17.615	33.984	1.00	69.32
ATOM	1501	C	ARG	A	202	14.351	-12.781	35.905	1.00	20.61
ATOM	1502	O	ARG	A	202	13.802	-12.033	35.094	1.00	14.26
ATOM	1503	N	HIS	A	203	14.431	-12.604	37.207	1.00	18.91
ATOM	1504	CA	HIS	A	203	13.836	-11.436	37.870	1.00	18.64
ATOM	1505	CB	HIS	A	203	12.711	-11.896	38.765	1.00	13.88
ATOM	1506	CG	HIS	A	203	11.813	-10.917	39.426	1.00	22.44
ATOM	1507	ND1	HIS	A	203	12.104	-10.321	40.633	1.00	23.99

**FIGURE 131**

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Three Dimensional Coordinates of HPTPbeta

ATOM	1508	CE1	HIS	A	203	11.127	-9.510	40.981	1.00	23.53
ATOM	1509	NE2	HIS	A	203	10.189	-9.558	40.046	1.00	17.09
ATOM	1510	CD2	HIS	A	203	10.604	-10.429	39.065	1.00	18.86
ATOM	1511	C	HIS	A	203	14.961	-10.731	38.626	1.00	17.56
ATOM	1512	O	HIS	A	203	15.649	-11.341	39.451	1.00	18.34
ATOM	1513	N	PHE	A	204	15.146	-9.457	38.314	1.00	15.90
ATOM	1514	CA	PHE	A	204	16.181	-8.621	38.906	1.00	15.46
ATOM	1515	CB	PHE	A	204	17.037	-7.984	37.819	1.00	15.83
ATOM	1516	CG	PHE	A	204	17.538	-8.995	36.783	1.00	15.57
ATOM	1517	CD1	PHE	A	204	16.751	-9.377	35.717	1.00	12.76
ATOM	1518	CE1	PHE	A	204	17.208	-10.292	34.785	1.00	23.10
ATOM	1519	CZ	PHE	A	204	18.474	-10.839	34.923	1.00	22.35
ATOM	1520	CE2	PHE	A	204	19.277	-10.461	35.989	1.00	21.53
ATOM	1521	CD2	PHE	A	204	18.807	-9.538	36.904	1.00	20.18
ATOM	1522	C	PHE	A	204	15.527	-7.556	39.785	1.00	20.25
ATOM	1523	O	PHE	A	204	14.885	-6.620	39.312	1.00	17.21
ATOM	1524	N	HIS	A	205	15.672	-7.713	41.097	1.00	17.28
ATOM	1525	CA	HIS	A	205	14.949	-6.855	42.035	1.00	14.35
ATOM	1526	CB	HIS	A	205	14.203	-7.745	43.021	1.00	20.27
ATOM	1527	CG	HIS	A	205	13.221	-7.056	43.900	1.00	17.93
ATOM	1528	ND1	HIS	A	205	12.549	-7.729	44.905	1.00	19.18
ATOM	1529	CE1	HIS	A	205	11.738	-6.874	45.516	1.00	22.04
ATOM	1530	NE2	HIS	A	205	11.866	-5.681	44.947	1.00	17.85
ATOM	1531	CD2	HIS	A	205	12.788	-5.771	43.928	1.00	12.88
ATOM	1532	C	HIS	A	205	15.896	-5.931	42.782	1.00	17.06
ATOM	1533	O	HIS	A	205	16.635	-6.400	43.658	1.00	21.06
ATOM	1534	N	TYR	A	206	15.883	-4.660	42.429	1.00	13.61
ATOM	1535	CA	TYR	A	206	16.715	-3.648	43.082	1.00	11.14
ATOM	1536	CB	TYR	A	206	17.008	-2.490	42.141	1.00	12.43
ATOM	1537	CG	TYR	A	206	18.011	-1.486	42.668	1.00	17.70
ATOM	1538	CD1	TYR	A	206	19.376	-1.745	42.568	1.00	14.03
ATOM	1539	CE1	TYR	A	206	20.334	-0.866	43.027	1.00	20.29
ATOM	1540	CZ	TYR	A	206	19.892	0.318	43.602	1.00	22.75
ATOM	1541	OH	TYR	A	206	20.839	1.200	44.070	1.00	25.15
ATOM	1542	CE2	TYR	A	206	18.553	0.609	43.718	1.00	19.11
ATOM	1543	CD2	TYR	A	206	17.596	-0.287	43.249	1.00	18.90
ATOM	1544	C	TYR	A	206	15.953	-3.189	44.315	1.00	15.80
ATOM	1545	O	TYR	A	206	14.828	-2.701	44.188	1.00	19.33
ATOM	1546	N	THR	A	207	16.503	-3.371	45.520	1.00	16.37
ATOM	1547	CA	THR	A	207	15.652	-3.191	46.691	1.00	18.59
ATOM	1548	CB	THR	A	207	15.789	-4.385	47.669	1.00	18.47
ATOM	1549	OG1	THR	A	207	17.175	-4.639	47.895	1.00	23.23
ATOM	1550	CG2	THR	A	207	15.217	-5.655	47.056	1.00	23.19
ATOM	1551	C	THR	A	207	15.955	-1.923	47.481	1.00	23.83
ATOM	1552	O	THR	A	207	15.371	-1.745	48.556	1.00	24.21
ATOM	1553	N	VAL	A	208	16.848	-1.060	47.004	1.00	22.88
ATOM	1554	CA	VAL	A	208	17.156	0.123	47.814	1.00	23.02
ATOM	1555	CB	VAL	A	208	18.604	0.059	48.325	1.00	22.02
ATOM	1556	CG1	VAL	A	208	18.747	-1.128	49.276	1.00	31.63
ATOM	1557	CG2	VAL	A	208	19.599	-0.045	47.185	1.00	23.30
ATOM	1558	C	VAL	A	208	16.951	1.425	47.059	1.00	16.29
ATOM	1559	O	VAL	A	208	17.782	2.331	47.160	1.00	26.60

**FIGURE 132**



ATOM	1560	N	TRP	A	209	15.861	1.525	46.321	1.00	14.67
ATOM	1561	CA	TRP	A	209	15.522	2.734	45.570	1.00	21.23
ATOM	1562	CB	TRP	A	209	15.364	2.460	44.075	1.00	23.37
ATOM	1563	CG	TRP	A	209	15.364	3.656	43.171	1.00	17.61
ATOM	1564	CD1	TRP	A	209	15.121	4.978	43.419	1.00	16.97
ATOM	1565	NE1	TRP	A	209	15.236	5.726	42.271	1.00	24.39
ATOM	1566	CE2	TRP	A	209	15.560	4.876	41.238	1.00	22.16
ATOM	1567	CD2	TRP	A	209	15.649	3.568	41.766	1.00	16.31
ATOM	1568	CE3	TRP	A	209	15.969	2.508	40.918	1.00	20.86
ATOM	1569	CZ3	TRP	A	209	16.190	2.771	39.578	1.00	24.91
ATOM	1570	CH2	TRP	A	209	16.095	4.077	39.075	1.00	20.45
ATOM	1571	CZ2	TRP	A	209	15.785	5.131	39.888	1.00	19.42
ATOM	1572	C	TRP	A	209	14.212	3.314	46.101	1.00	23.30
ATOM	1573	O	TRP	A	209	13.164	2.827	45.672	1.00	25.49
ATOM	1574	N	PRO	A	210	14.299	4.324	46.963	1.00	23.84
ATOM	1575	CA	PRO	A	210	13.107	4.901	47.582	1.00	18.86
ATOM	1576	CB	PRO	A	210	13.655	5.980	48.508	1.00	26.38
ATOM	1577	CG	PRO	A	210	15.115	5.736	48.620	1.00	29.41
ATOM	1578	CD	PRO	A	210	15.540	4.996	47.383	1.00	23.17
ATOM	1579	C	PRO	A	210	12.199	5.553	46.536	1.00	24.85
ATOM	1580	O	PRO	A	210	12.696	6.304	45.689	1.00	25.87
ATOM	1581	N	ASP	A	211	10.901	5.271	46.601	1.00	19.16
ATOM	1582	CA	ASP	A	211	9.942	5.886	45.698	1.00	23.36
ATOM	1583	CB	ASP	A	211	8.499	5.590	46.126	1.00	25.37
ATOM	1584	CG	ASP	A	211	7.576	5.865	44.943	1.00	24.78
ATOM	1585	OD1	ASP	A	211	6.379	5.571	45.094	1.00	26.65
ATOM	1586	OD2	ASP	A	211	8.078	6.348	43.899	1.00	23.48
ATOM	1587	C	ASP	A	211	10.124	7.395	45.610	1.00	29.53
ATOM	1588	O	ASP	A	211	10.525	8.061	46.573	1.00	32.57
ATOM	1589	N	HIS	A	212	9.888	7.977	44.442	1.00	28.91
ATOM	1590	CA	HIS	A	212	10.051	9.398	44.175	1.00	28.03
ATOM	1591	CB	HIS	A	212	9.080	10.227	45.032	1.00	21.33
ATOM	1592	CG	HIS	A	212	7.681	9.700	44.958	1.00	26.06
ATOM	1593	ND1	HIS	A	212	6.939	9.760	43.801	1.00	23.57
ATOM	1594	CE1	HIS	A	212	5.754	9.219	44.023	1.00	25.96
ATOM	1595	NE2	HIS	A	212	5.703	8.814	45.279	1.00	26.25
ATOM	1596	CD2	HIS	A	212	6.902	9.100	45.884	1.00	27.02
ATOM	1597	C	HIS	A	212	11.460	9.932	44.425	1.00	34.91
ATOM	1598	O	HIS	A	212	11.653	11.152	44.346	1.00	42.93
ATOM	1599	N	GLY	A	213	12.418	9.071	44.709	1.00	25.41
ATOM	1600	CA	GLY	A	213	13.772	9.392	45.079	1.00	25.24
ATOM	1601	C	GLY	A	213	14.771	8.747	44.143	1.00	27.01
ATOM	1602	O	GLY	A	213	14.471	8.336	43.027	1.00	22.02
ATOM	1603	N	VAL	A	214	16.012	8.697	44.602	1.00	26.65
ATOM	1604	CA	VAL	A	214	17.102	8.144	43.810	1.00	31.35
ATOM	1605	CB	VAL	A	214	17.945	9.250	43.163	1.00	35.53
ATOM	1606	CG1	VAL	A	214	17.091	10.182	42.307	1.00	27.84
ATOM	1607	CG2	VAL	A	214	18.668	10.055	44.234	1.00	40.38
ATOM	1608	C	VAL	A	214	17.953	7.295	44.742	1.00	28.56
ATOM	1609	O	VAL	A	214	17.887	7.492	45.959	1.00	28.51
ATOM	1610	N	PRO	A	215	18.720	6.349	44.228	1.00	23.57
ATOM	1611	CA	PRO	A	215	19.542	5.511	45.116	1.00	29.45

**FIGURE 133**

ATOM	1612	CB	PRO A 215	20.192	4.526	44.146	1.00	29.52
ATOM	1613	CG	PRO A 215	19.235	4.515	42.984	1.00	28.93
ATOM	1614	CD	PRO A 215	18.865	5.974	42.820	1.00	23.13
ATOM	1615	C	PRO A 215	20.601	6.338	45.842	1.00	35.63
ATOM	1616	O	PRO A 215	20.990	7.415	45.396	1.00	30.87
ATOM	1617	N	GLU A 216	21.073	5.828	46.972	1.00	35.49
ATOM	1618	CA	GLU A 216	22.063	6.538	47.780	1.00	35.03
ATOM	1619	CB	GLU A 216	22.254	5.768	49.090	1.00	36.48
ATOM	1620	CG	GLU A 216	23.661	5.715	49.649	1.00	52.93
ATOM	1621	CD	GLU A 216	23.844	4.606	50.672	1.00	63.63
ATOM	1622	OE1	GLU A 216	24.879	3.902	50.618	1.00	59.31
ATOM	1623	OE2	GLU A 216	22.952	4.437	51.532	1.00	69.52
ATOM	1624	C	GLU A 216	23.368	6.751	47.032	1.00	33.10
ATOM	1625	O	GLU A 216	24.121	7.675	47.370	1.00	39.10
ATOM	1626	N	THR A 217	23.711	5.964	46.014	1.00	32.88
ATOM	1627	CA	THR A 217	24.924	6.230	45.242	1.00	34.43
ATOM	1628	CB	THR A 217	26.135	5.360	45.635	1.00	41.56
ATOM	1629	OG1	THR A 217	25.910	4.010	45.183	1.00	31.22
ATOM	1630	CG2	THR A 217	26.341	5.329	47.138	1.00	44.45
ATOM	1631	C	THR A 217	24.711	5.979	43.748	1.00	30.56
ATOM	1632	O	THR A 217	23.787	5.258	43.382	1.00	25.88
ATOM	1633	N	THR A 218	25.578	6.530	42.901	1.00	26.73
ATOM	1634	CA	THR A 218	25.494	6.239	41.469	1.00	30.02
ATOM	1635	CB	THR A 218	26.251	7.270	40.615	1.00	29.46
ATOM	1636	OG1	THR A 218	27.594	7.382	41.105	1.00	27.79
ATOM	1637	CG2	THR A 218	25.616	8.644	40.740	1.00	30.31
ATOM	1638	C	THR A 218	26.045	4.846	41.171	1.00	27.66
ATOM	1639	O	THR A 218	25.499	4.105	40.348	1.00	23.92
ATOM	1640	N	GLN A 219	27.123	4.478	41.848	1.00	26.54
ATOM	1641	CA	GLN A 219	27.764	3.182	41.661	1.00	25.35
ATOM	1642	CB	GLN A 219	28.845	2.982	42.729	1.00	35.12
ATOM	1643	CG	GLN A 219	30.230	3.445	42.313	1.00	50.76
ATOM	1644	CD	GLN A 219	31.311	2.472	42.754	1.00	70.22
ATOM	1645	OE1	GLN A 219	31.350	1.331	42.286	1.00	92.23
ATOM	1646	NE2	GLN A 219	32.187	2.921	43.650	1.00	63.32
ATOM	1647	C	GLN A 219	26.783	2.013	41.730	1.00	26.20
ATOM	1648	O	GLN A 219	26.802	1.112	40.897	1.00	29.61
ATOM	1649	N	SER A 220	25.929	2.027	42.746	1.00	26.43
ATOM	1650	CA	SER A 220	24.978	0.956	42.997	1.00	31.59
ATOM	1651	CB	SER A 220	24.116	1.337	44.205	1.00	38.90
ATOM	1652	OG	SER A 220	23.043	0.429	44.379	1.00	33.12
ATOM	1653	C	SER A 220	24.097	0.682	41.788	1.00	31.15
ATOM	1654	O	SER A 220	23.995	-0.428	41.264	1.00	22.82
ATOM	1655	N	LEU A 221	23.421	1.736	41.316	1.00	26.37
ATOM	1656	CA	LEU A 221	22.527	1.511	40.181	1.00	22.50
ATOM	1657	CB	LEU A 221	21.564	2.696	40.002	1.00	25.48
ATOM	1658	CG	LEU A 221	20.346	2.374	39.125	1.00	27.75
ATOM	1659	CD1	LEU A 221	19.596	1.169	39.683	1.00	24.04
ATOM	1660	CD2	LEU A 221	19.428	3.572	39.007	1.00	26.75
ATOM	1661	C	LEU A 221	23.311	1.255	38.907	1.00	16.37
ATOM	1662	O	LEU A 221	22.870	0.452	38.078	1.00	25.76
ATOM	1663	N	ILE A 222	24.462	1.917	38.728	1.00	17.23

**FIGURE 134**

ATOM	1664	CA	ILE	A	222	25.230	1.662	37.507	1.00	21.02
ATOM	1665	CB	ILE	A	222	26.510	2.506	37.436	1.00	23.08
ATOM	1666	CG1	ILE	A	222	26.245	3.966	37.060	1.00	23.12
ATOM	1667	CD1	ILE	A	222	27.289	4.943	37.546	1.00	25.12
ATOM	1668	CG2	ILE	A	222	27.498	1.864	36.473	1.00	26.15
ATOM	1669	C	ILE	A	222	25.573	0.179	37.422	1.00	20.38
ATOM	1670	O	ILE	A	222	25.462	-0.473	36.385	1.00	18.34
ATOM	1671	N	GLN	A	223	26.005	-0.362	38.558	1.00	24.24
ATOM	1672	CA	GLN	A	223	26.401	-1.763	38.598	1.00	23.96
ATOM	1673	CB	GLN	A	223	27.058	-2.162	39.919	1.00	26.95
ATOM	1674	CG	GLN	A	223	28.327	-1.426	40.293	1.00	37.08
ATOM	1675	CD	GLN	A	223	29.119	-0.836	39.150	1.00	56.97
ATOM	1676	OE1	GLN	A	223	29.337	-1.473	38.116	1.00	84.38
ATOM	1677	NE2	GLN	A	223	29.581	0.404	39.315	1.00	54.63
ATOM	1678	C	GLN	A	223	25.163	-2.627	38.391	1.00	24.09
ATOM	1679	O	GLN	A	223	25.262	-3.654	37.737	1.00	19.87
ATOM	1680	N	PHE	A	224	24.017	-2.212	38.943	1.00	20.92
ATOM	1681	CA	PHE	A	224	22.831	-3.055	38.717	1.00	22.52
ATOM	1682	CB	PHE	A	224	21.658	-2.527	39.529	1.00	21.20
ATOM	1683	CG	PHE	A	224	20.330	-3.222	39.302	1.00	23.79
ATOM	1684	CD1	PHE	A	224	20.105	-4.505	39.792	1.00	21.63
ATOM	1685	CE1	PHE	A	224	18.881	-5.123	39.606	1.00	15.71
ATOM	1686	CZ	PHE	A	224	17.867	-4.481	38.919	1.00	16.76
ATOM	1687	CE2	PHE	A	224	18.074	-3.204	38.415	1.00	13.56
ATOM	1688	CD2	PHE	A	224	19.306	-2.589	38.609	1.00	16.88
ATOM	1689	C	PHE	A	224	22.477	-3.104	37.240	1.00	26.00
ATOM	1690	O	PHE	A	224	22.266	-4.142	36.617	1.00	17.57
ATOM	1691	N	VAL	A	225	22.406	-1.916	36.636	1.00	17.86
ATOM	1692	CA	VAL	A	225	22.097	-1.855	35.214	1.00	14.81
ATOM	1693	CB	VAL	A	225	22.100	-0.383	34.764	1.00	15.04
ATOM	1694	CG1	VAL	A	225	22.090	-0.273	33.250	1.00	17.94
ATOM	1695	CG2	VAL	A	225	20.903	0.328	35.391	1.00	19.94
ATOM	1696	C	VAL	A	225	23.068	-2.668	34.378	1.00	17.19
ATOM	1697	O	VAL	A	225	22.674	-3.427	33.481	1.00	19.92
ATOM	1698	N	ARG	A	226	24.371	-2.550	34.632	1.00	18.63
ATOM	1699	CA	ARG	A	226	25.295	-3.342	33.809	1.00	24.02
ATOM	1700	CB	ARG	A	226	26.735	-2.935	34.122	1.00	26.46
ATOM	1701	CG	ARG	A	226	27.107	-1.562	33.582	1.00	23.91
ATOM	1702	CD	ARG	A	226	28.568	-1.275	33.905	1.00	30.68
ATOM	1703	NE	ARG	A	226	28.977	0.040	33.425	1.00	37.38
ATOM	1704	CZ	ARG	A	226	29.848	0.828	34.046	1.00	45.40
ATOM	1705	NH1	ARG	A	226	30.416	0.454	35.185	1.00	41.82
ATOM	1706	NH2	ARG	A	226	30.154	2.009	33.522	1.00	45.68
ATOM	1707	C	ARG	A	226	25.094	-4.836	34.022	1.00	22.36
ATOM	1708	O	ARG	A	226	25.220	-5.649	33.106	1.00	24.97
ATOM	1709	N	THR	A	227	24.762	-5.258	35.243	1.00	21.54
ATOM	1710	CA	THR	A	227	24.427	-6.660	35.455	1.00	21.82
ATOM	1711	CB	THR	A	227	24.206	-6.945	36.957	1.00	29.96
ATOM	1712	OG1	THR	A	227	25.358	-6.463	37.648	1.00	28.79
ATOM	1713	CG2	THR	A	227	24.081	-8.437	37.182	1.00	29.12
ATOM	1714	C	THR	A	227	23.182	-7.107	34.713	1.00	19.03
ATOM	1715	O	THR	A	227	23.188	-8.158	34.074	1.00	26.29

FIGURE 135

ATOM	1716	N	VAL	A	228	22.097	-6.336	34.778	1.00	17.49
ATOM	1717	CA	VAL	A	228	20.926	-6.679	33.967	1.00	17.38
ATOM	1718	CB	VAL	A	228	19.784	-5.686	34.259	1.00	18.18
ATOM	1719	CG1	VAL	A	228	18.550	-5.978	33.411	1.00	19.51
ATOM	1720	CG2	VAL	A	228	19.437	-5.770	35.741	1.00	15.24
ATOM	1721	C	VAL	A	228	21.238	-6.711	32.477	1.00	17.43
ATOM	1722	O	VAL	A	228	20.849	-7.647	31.766	1.00	19.11
ATOM	1723	N	ARG	A	229	21.943	-5.703	31.972	1.00	17.01
ATOM	1724	CA	ARG	A	229	22.204	-5.651	30.527	1.00	21.03
ATOM	1725	CB	ARG	A	229	22.833	-4.291	30.221	1.00	17.71
ATOM	1726	CG	ARG	A	229	23.465	-4.129	28.873	1.00	18.28
ATOM	1727	CD	ARG	A	229	22.589	-3.886	27.687	1.00	26.78
ATOM	1728	NE	ARG	A	229	21.245	-3.355	27.849	1.00	22.41
ATOM	1729	CZ	ARG	A	229	20.263	-3.671	27.008	1.00	26.65
ATOM	1730	NH1	ARG	A	229	20.514	-4.494	25.992	1.00	28.43
ATOM	1731	NH2	ARG	A	229	19.031	-3.197	27.144	1.00	22.64
ATOM	1732	C	ARG	A	229	23.052	-6.833	30.076	1.00	26.78
ATOM	1733	O	ARG	A	229	22.914	-7.389	28.974	1.00	22.93
ATOM	1734	N	ASP	A	230	23.970	-7.282	30.931	1.00	22.22
ATOM	1735	CA	ASP	A	230	24.761	-8.474	30.615	1.00	19.37
ATOM	1736	CB	ASP	A	230	25.720	-8.746	31.770	1.00	26.22
ATOM	1737	CG	ASP	A	230	26.764	-9.808	31.496	1.00	37.14
ATOM	1738	OD1	ASP	A	230	27.772	-9.830	32.234	1.00	43.30
ATOM	1739	OD2	ASP	A	230	26.579	-10.609	30.558	1.00	48.34
ATOM	1740	C	ASP	A	230	23.856	-9.667	30.369	1.00	24.85
ATOM	1741	O	ASP	A	230	24.007	-10.389	29.383	1.00	27.24
ATOM	1742	N	TYR	A	231	22.897	-9.868	31.276	1.00	24.39
ATOM	1743	CA	TYR	A	231	21.924	-10.943	31.156	1.00	17.89
ATOM	1744	CB	TYR	A	231	21.011	-10.999	32.384	1.00	18.72
ATOM	1745	CG	TYR	A	231	21.604	-11.752	33.540	1.00	21.03
ATOM	1746	CD1	TYR	A	231	22.218	-11.040	34.559	1.00	27.60
ATOM	1747	CE1	TYR	A	231	22.770	-11.713	35.627	1.00	32.43
ATOM	1748	CZ	TYR	A	231	22.716	-13.085	35.692	1.00	25.45
ATOM	1749	OH	TYR	A	231	23.283	-13.694	36.789	1.00	36.71
ATOM	1750	CE2	TYR	A	231	22.116	-13.815	34.698	1.00	23.54
ATOM	1751	CD2	TYR	A	231	21.561	-13.136	33.622	1.00	30.94
ATOM	1752	C	TYR	A	231	21.006	-10.771	29.954	1.00	21.66
ATOM	1753	O	TYR	A	231	20.659	-11.726	29.269	1.00	23.21
ATOM	1754	N	ILE	A	232	20.581	-9.527	29.718	1.00	16.63
ATOM	1755	CA	ILE	A	232	19.785	-9.280	28.517	1.00	19.85
ATOM	1756	CB	ILE	A	232	19.349	-7.808	28.395	1.00	18.50
ATOM	1757	CG1	ILE	A	232	18.391	-7.370	29.499	1.00	22.29
ATOM	1758	CD1	ILE	A	232	18.084	-5.901	29.616	1.00	17.14
ATOM	1759	CG2	ILE	A	232	18.773	-7.570	26.999	1.00	22.60
ATOM	1760	C	ILE	A	232	20.574	-9.652	27.262	1.00	21.88
ATOM	1761	O	ILE	A	232	20.066	-10.308	26.358	1.00	24.41
ATOM	1762	N	ASN	A	233	21.840	-9.242	27.197	1.00	23.34
ATOM	1763	CA	ASN	A	233	22.592	-9.555	25.975	1.00	30.61
ATOM	1764	CB	ASN	A	233	23.963	-8.883	25.996	1.00	27.03
ATOM	1765	CG	ASN	A	233	23.869	-7.379	25.800	1.00	29.17
ATOM	1766	OD1	ASN	A	233	22.902	-6.849	25.248	1.00	36.95
ATOM	1767	ND2	ASN	A	233	24.882	-6.648	26.251	1.00	36.00

FIGURE 136

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ATOM	1768	C	ASN	A	233	22.705	-11.062	25.808	1.00	31.90
ATOM	1769	O	ASN	A	233	22.823	-11.595	24.711	1.00	37.58
ATOM	1770	N	ARG	A	234	22.659	-11.778	26.927	1.00	29.26
ATOM	1771	CA	ARG	A	234	22.766	-13.225	26.874	1.00	31.78
ATOM	1772	CB	ARG	A	234	23.465	-13.746	28.129	1.00	38.80
ATOM	1773	CG	ARG	A	234	24.878	-13.216	28.320	1.00	43.23
ATOM	1774	CD	ARG	A	234	25.391	-13.632	29.692	1.00	51.48
ATOM	1775	NE	ARG	A	234	26.840	-13.511	29.800	1.00	58.62
ATOM	1776	CZ	ARG	A	234	27.670	-14.516	30.055	1.00	57.56
ATOM	1777	NH1	ARG	A	234	27.201	-15.746	30.232	1.00	60.00
ATOM	1778	NH2	ARG	A	234	28.975	-14.277	30.128	1.00	30.80
ATOM	1779	C	ARG	A	234	21.407	-13.890	26.747	1.00	34.88
ATOM	1780	O	ARG	A	234	21.304	-15.085	27.031	1.00	32.66
ATOM	1781	N	SER	A	235	20.351	-13.186	26.337	1.00	24.05
ATOM	1782	CA	SER	A	235	19.065	-13.884	26.273	1.00	27.03
ATOM	1783	CB	SER	A	235	17.992	-13.249	27.156	1.00	26.67
ATOM	1784	OG	SER	A	235	18.396	-13.237	28.520	1.00	34.69
ATOM	1785	C	SER	A	235	18.578	-13.933	24.827	1.00	31.92
ATOM	1786	O	SER	A	235	17.770	-13.103	24.425	1.00	28.81
ATOM	1787	N	PRO	A	236	19.099	-14.914	24.105	1.00	37.48
ATOM	1788	CA	PRO	A	236	18.765	-15.087	22.693	1.00	39.12
ATOM	1789	CB	PRO	A	236	19.584	-16.312	22.269	1.00	46.32
ATOM	1790	CG	PRO	A	236	19.866	-17.038	23.546	1.00	44.02
ATOM	1791	CD	PRO	A	236	20.033	-15.957	24.580	1.00	42.48
ATOM	1792	C	PRO	A	236	17.279	-15.378	22.517	1.00	34.00
ATOM	1793	O	PRO	A	236	16.696	-16.221	23.207	1.00	43.89
ATOM	1794	N	GLY	A	237	16.668	-14.660	21.577	1.00	27.25
ATOM	1795	CA	GLY	A	237	15.280	-14.912	21.249	1.00	25.75
ATOM	1796	C	GLY	A	237	14.296	-14.183	22.132	1.00	21.94
ATOM	1797	O	GLY	A	237	13.109	-14.257	21.848	1.00	21.04
ATOM	1798	N	ALA	A	238	14.739	-13.494	23.181	1.00	22.86
ATOM	1799	CA	ALA	A	238	13.836	-12.838	24.112	1.00	20.89
ATOM	1800	CB	ALA	A	238	14.669	-12.130	25.194	1.00	22.60
ATOM	1801	C	ALA	A	238	12.923	-11.807	23.470	1.00	20.68
ATOM	1802	O	ALA	A	238	13.361	-11.132	22.539	1.00	27.83
ATOM	1803	N	GLY	A	239	11.712	-11.670	23.986	1.00	18.60
ATOM	1804	CA	GLY	A	239	10.829	-10.549	23.700	1.00	18.19
ATOM	1805	C	GLY	A	239	11.346	-9.351	24.497	1.00	15.46
ATOM	1806	O	GLY	A	239	12.521	-9.353	24.887	1.00	18.43
ATOM	1807	N	PRO	A	240	10.484	-8.378	24.743	1.00	17.13
ATOM	1808	CA	PRO	A	240	10.889	-7.184	25.496	1.00	15.73
ATOM	1809	CB	PRO	A	240	9.626	-6.323	25.550	1.00	18.54
ATOM	1810	CG	PRO	A	240	8.740	-6.868	24.479	1.00	25.69
ATOM	1811	CD	PRO	A	240	9.073	-8.329	24.350	1.00	13.87
ATOM	1812	C	PRO	A	240	11.306	-7.518	26.923	1.00	14.71
ATOM	1813	O	PRO	A	240	10.867	-8.502	27.508	1.00	14.52
ATOM	1814	N	THR	A	241	12.179	-6.683	27.461	1.00	13.92
ATOM	1815	CA	THR	A	241	12.533	-6.674	28.869	1.00	14.60
ATOM	1816	CB	THR	A	241	13.890	-5.989	29.061	1.00	14.17
ATOM	1817	OG1	THR	A	241	14.893	-6.769	28.389	1.00	18.17
ATOM	1818	CG2	THR	A	241	14.291	-5.941	30.536	1.00	17.28
ATOM	1819	C	THR	A	241	11.441	-5.931	29.639	1.00	16.58

**FIGURE 137**

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ATOM	1820	O	THR	A	241	11.124	-4.784	29.305	1.00	13.03
ATOM	1821	N	VAL	A	242	10.856	-6.571	30.646	1.00	12.88
ATOM	1822	CA	VAL	A	242	9.842	-5.913	31.464	1.00	9.81
ATOM	1823	CB	VAL	A	242	8.866	-6.900	32.116	1.00	14.04
ATOM	1824	CG1	VAL	A	242	8.019	-6.223	33.179	1.00	16.00
ATOM	1825	CG2	VAL	A	242	7.942	-7.536	31.081	1.00	15.42
ATOM	1826	C	VAL	A	242	10.564	-5.128	32.554	1.00	12.01
ATOM	1827	O	VAL	A	242	11.501	-5.623	33.171	1.00	15.03
ATOM	1828	N	VAL	A	243	10.107	-3.893	32.785	1.00	11.17
ATOM	1829	CA	VAL	A	243	10.668	-3.065	33.838	1.00	9.13
ATOM	1830	CB	VAL	A	243	11.575	-1.931	33.352	1.00	15.38
ATOM	1831	CG1	VAL	A	243	12.196	-1.213	34.555	1.00	10.88
ATOM	1832	CG2	VAL	A	243	12.666	-2.463	32.442	1.00	12.02
ATOM	1833	C	VAL	A	243	9.482	-2.452	34.574	1.00	12.00
ATOM	1834	O	VAL	A	243	8.576	-1.930	33.932	1.00	9.88
ATOM	1835	N	HIS	A	244	9.484	-2.539	35.899	1.00	11.09
ATOM	1836	CA	HIS	A	244	8.412	-1.896	36.618	1.00	8.29
ATOM	1837	CB	HIS	A	244	7.205	-2.846	36.762	1.00	7.72
ATOM	1838	CG	HIS	A	244	7.327	-3.897	37.824	1.00	15.86
ATOM	1839	ND1	HIS	A	244	7.058	-3.666	39.160	1.00	14.99
ATOM	1840	CE1	HIS	A	244	7.236	-4.775	39.871	1.00	13.71
ATOM	1841	NE2	HIS	A	244	7.617	-5.753	39.039	1.00	16.24
ATOM	1842	CD2	HIS	A	244	7.666	-5.215	37.766	1.00	15.19
ATOM	1843	C	HIS	A	244	8.890	-1.434	37.999	1.00	11.45
ATOM	1844	O	HIS	A	244	9.917	-1.896	38.509	1.00	12.61
ATOM	1845	N	CYS	A	245	8.085	-0.528	38.539	1.00	18.46
ATOM	1846	CA	CYS	A	245	8.250	-0.016	39.911	1.00	14.56
ATOM	1847	CB	CYS	A	245	9.019	1.304	39.865	1.00	10.22
ATOM	1848	SG	CYS	A	245	8.326	2.556	38.746	1.00	14.87
ATOM	1849	C	CYS	A	245	6.876	0.022	40.549	1.00	15.86
ATOM	1850	O	CYS	A	245	6.192	-1.015	40.537	1.00	13.86
ATOM	1851	N	SER	A	246	6.376	1.128	41.113	1.00	9.56
ATOM	1852	CA	SER	A	246	4.987	1.073	41.577	1.00	9.76
ATOM	1853	CB	SER	A	246	4.844	1.783	42.926	1.00	7.75
ATOM	1854	OG	SER	A	246	3.495	1.651	43.398	1.00	9.89
ATOM	1855	C	SER	A	246	4.052	1.626	40.505	1.00	9.69
ATOM	1856	O	SER	A	246	3.099	0.947	40.088	1.00	10.94
ATOM	1857	N	ALA	A	247	4.265	2.853	40.014	1.00	15.37
ATOM	1858	CA	ALA	A	247	3.443	3.430	38.976	1.00	12.59
ATOM	1859	CB	ALA	A	247	3.411	4.964	38.966	1.00	11.87
ATOM	1860	C	ALA	A	247	3.960	3.046	37.583	1.00	10.49
ATOM	1861	O	ALA	A	247	3.242	3.172	36.600	1.00	15.72
ATOM	1862	N	GLY	A	248	5.216	2.627	37.542	1.00	9.25
ATOM	1863	CA	GLY	A	248	5.870	2.318	36.284	1.00	13.53
ATOM	1864	C	GLY	A	248	6.210	3.615	35.570	1.00	20.73
ATOM	1865	O	GLY	A	248	6.104	3.656	34.349	1.00	15.35
ATOM	1866	N	VAL	A	249	6.616	4.653	36.301	1.00	14.47
ATOM	1867	CA	VAL	A	249	7.031	5.853	35.561	1.00	23.41
ATOM	1868	CB	VAL	A	249	5.942	6.948	35.534	1.00	27.80
ATOM	1869	CG1	VAL	A	249	4.675	6.441	34.850	1.00	10.99
ATOM	1870	CG2	VAL	A	249	5.615	7.470	36.930	1.00	21.36
ATOM	1871	C	VAL	A	249	8.342	6.437	36.071	1.00	18.78

**FIGURE 138**

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ATOM	1872	O	VAL	A	249	9.252	6.752	35.288	1.00	16.76
ATOM	1873	N	GLY	A	250	8.505	6.625	37.372	1.00	17.57
ATOM	1874	CA	GLY	A	250	9.695	7.363	37.801	1.00	15.55
ATOM	1875	C	GLY	A	250	10.939	6.526	37.860	1.00	11.84
ATOM	1876	O	GLY	A	250	11.945	6.720	37.165	1.00	17.28
ATOM	1877	N	ARG	A	251	10.945	5.519	38.740	1.00	11.43
ATOM	1878	CA	ARG	A	251	12.141	4.687	38.866	1.00	10.27
ATOM	1879	CB	ARG	A	251	12.050	3.844	40.148	1.00	14.41
ATOM	1880	CG	ARG	A	251	12.082	4.786	41.366	1.00	15.59
ATOM	1881	CD	ARG	A	251	11.706	4.068	42.647	1.00	10.84
ATOM	1882	NE	ARG	A	251	10.278	3.795	42.721	1.00	15.91
ATOM	1883	CZ	ARG	A	251	9.729	3.085	43.709	1.00	22.05
ATOM	1884	NH1	ARG	A	251	10.528	2.610	44.665	1.00	12.86
ATOM	1885	NH2	ARG	A	251	8.413	2.887	43.697	1.00	19.96
ATOM	1886	C	ARG	A	251	12.319	3.826	37.620	1.00	7.84
ATOM	1887	O	ARG	A	251	13.444	3.643	37.141	1.00	13.49
ATOM	1888	N	THR	A	252	11.189	3.332	37.112	1.00	10.86
ATOM	1889	CA	THR	A	252	11.278	2.605	35.826	1.00	8.96
ATOM	1890	CB	THR	A	252	9.877	2.125	35.429	1.00	16.98
ATOM	1891	OG1	THR	A	252	9.509	1.052	36.311	1.00	15.33
ATOM	1892	CG2	THR	A	252	9.847	1.560	34.015	1.00	18.22
ATOM	1893	C	THR	A	252	11.901	3.464	34.745	1.00	13.54
ATOM	1894	O	THR	A	252	12.828	3.103	34.003	1.00	14.11
ATOM	1895	N	GLY	A	253	11.410	4.690	34.594	1.00	14.04
ATOM	1896	CA	GLY	A	253	11.976	5.531	33.532	1.00	16.89
ATOM	1897	C	GLY	A	253	13.426	5.881	33.711	1.00	11.18
ATOM	1898	O	GLY	A	253	14.233	5.937	32.777	1.00	14.06
ATOM	1899	N	THR	A	254	13.831	6.138	34.965	1.00	12.53
ATOM	1900	CA	THR	A	254	15.235	6.408	35.233	1.00	13.37
ATOM	1901	CB	THR	A	254	15.455	6.837	36.695	1.00	16.96
ATOM	1902	OG1	THR	A	254	14.606	7.960	36.960	1.00	17.14
ATOM	1903	CG2	THR	A	254	16.884	7.294	36.923	1.00	17.26
ATOM	1904	C	THR	A	254	16.108	5.200	34.937	1.00	18.94
ATOM	1905	O	THR	A	254	17.217	5.344	34.409	1.00	17.66
ATOM	1906	N	PHE	A	255	15.602	4.014	35.263	1.00	11.19
ATOM	1907	CA	PHE	A	255	16.362	2.796	34.987	1.00	10.10
ATOM	1908	CB	PHE	A	255	15.617	1.534	35.479	1.00	12.68
ATOM	1909	CG	PHE	A	255	16.273	0.217	35.051	1.00	13.42
ATOM	1910	CD1	PHE	A	255	17.258	-0.329	35.873	1.00	14.10
ATOM	1911	CE1	PHE	A	255	17.901	-1.509	35.535	1.00	15.64
ATOM	1912	CZ	PHE	A	255	17.592	-2.156	34.345	1.00	14.48
ATOM	1913	CE2	PHE	A	255	16.600	-1.645	33.523	1.00	15.99
ATOM	1914	CD2	PHE	A	255	15.937	-0.487	33.898	1.00	19.84
ATOM	1915	C	PHE	A	255	16.626	2.687	33.493	1.00	11.10
ATOM	1916	O	PHE	A	255	17.732	2.397	33.060	1.00	14.84
ATOM	1917	N	ILE	A	256	15.561	2.863	32.704	1.00	14.82
ATOM	1918	CA	ILE	A	256	15.726	2.641	31.264	1.00	10.00
ATOM	1919	CB	ILE	A	256	14.352	2.607	30.589	1.00	12.80
ATOM	1920	CG1	ILE	A	256	13.558	1.345	30.943	1.00	11.66
ATOM	1921	CD1	ILE	A	256	12.084	1.457	30.602	1.00	12.54
ATOM	1922	CG2	ILE	A	256	14.463	2.826	29.091	1.00	14.64
ATOM	1923	C	ILE	A	256	16.584	3.736	30.662	1.00	14.37

**FIGURE 139**

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ATOM	1924	O	ILE	A	256	17.387	3.496	29.766	1.00	20.73
ATOM	1925	N	ALA	A	257	16.399	4.970	31.154	1.00	16.70
ATOM	1926	CA	ALA	A	257	17.236	6.040	30.612	1.00	12.87
ATOM	1927	CB	ALA	A	257	16.865	7.389	31.209	1.00	18.47
ATOM	1928	C	ALA	A	257	18.699	5.703	30.858	1.00	19.90
ATOM	1929	O	ALA	A	257	19.567	5.851	29.993	1.00	19.76
ATOM	1930	N	LEU	A	258	18.967	5.203	32.071	1.00	15.65
ATOM	1931	CA	LEU	A	258	20.358	4.894	32.395	1.00	16.29
ATOM	1932	CB	LEU	A	258	20.501	4.631	33.901	1.00	18.82
ATOM	1933	CG	LEU	A	258	21.938	4.343	34.350	1.00	18.09
ATOM	1934	CD1	LEU	A	258	22.864	5.426	33.809	1.00	16.26
ATOM	1935	CD2	LEU	A	258	22.000	4.251	35.864	1.00	19.56
ATOM	1936	C	LEU	A	258	20.840	3.708	31.580	1.00	21.01
ATOM	1937	O	LEU	A	258	21.974	3.651	31.110	1.00	23.61
ATOM	1938	N	ASP	A	259	19.972	2.715	31.377	1.00	14.03
ATOM	1939	CA	ASP	A	259	20.372	1.573	30.549	1.00	19.00
ATOM	1940	CB	ASP	A	259	19.247	0.544	30.512	1.00	16.27
ATOM	1941	CG	ASP	A	259	19.491	-0.692	29.670	1.00	16.85
ATOM	1942	OD1	ASP	A	259	20.621	-1.227	29.689	1.00	22.41
ATOM	1943	OD2	ASP	A	259	18.564	-1.164	28.976	1.00	22.35
ATOM	1944	C	ASP	A	259	20.732	2.051	29.142	1.00	24.46
ATOM	1945	O	ASP	A	259	21.715	1.611	28.532	1.00	22.50
ATOM	1946	N	ARG	A	260	19.915	2.967	28.624	1.00	18.68
ATOM	1947	CA	ARG	A	260	20.166	3.492	27.277	1.00	21.73
ATOM	1948	CB	ARG	A	260	18.965	4.302	26.759	1.00	19.52
ATOM	1949	CG	ARG	A	260	17.772	3.420	26.379	1.00	21.69
ATOM	1950	CD	ARG	A	260	16.687	4.238	25.678	1.00	27.46
ATOM	1951	NE	ARG	A	260	17.207	4.867	24.479	1.00	35.48
ATOM	1952	CZ	ARG	A	260	16.651	5.618	23.551	1.00	36.55
ATOM	1953	NH1	ARG	A	260	15.372	5.944	23.580	1.00	47.22
ATOM	1954	NH2	ARG	A	260	17.404	6.063	22.548	1.00	36.27
ATOM	1955	C	ARG	A	260	21.432	4.331	27.217	1.00	26.15
ATOM	1956	O	ARG	A	260	22.192	4.165	26.256	1.00	23.92
ATOM	1957	N	ILE	A	261	21.688	5.215	28.182	1.00	26.20
ATOM	1958	CA	ILE	A	261	22.842	6.103	28.059	1.00	22.09
ATOM	1959	CB	ILE	A	261	22.764	7.376	28.922	1.00	23.64
ATOM	1960	CG1	ILE	A	261	23.001	7.148	30.418	1.00	30.05
ATOM	1961	CD1	ILE	A	261	22.191	8.055	31.328	1.00	30.61
ATOM	1962	CG2	ILE	A	261	21.452	8.105	28.674	1.00	18.34
ATOM	1963	C	ILE	A	261	24.146	5.381	28.394	1.00	28.75
ATOM	1964	O	ILE	A	261	25.206	5.722	27.854	1.00	36.26
ATOM	1965	N	LEU	A	262	24.110	4.384	29.276	1.00	25.96
ATOM	1966	CA	LEU	A	262	25.364	3.663	29.544	1.00	24.13
ATOM	1967	CB	LEU	A	262	25.207	2.686	30.699	1.00	24.26
ATOM	1968	CG	LEU	A	262	25.112	3.236	32.123	1.00	20.71
ATOM	1969	CD1	LEU	A	262	25.079	2.071	33.101	1.00	24.55
ATOM	1970	CD2	LEU	A	262	26.257	4.176	32.453	1.00	23.31
ATOM	1971	C	LEU	A	262	25.812	2.958	28.271	1.00	29.49
ATOM	1972	O	LEU	A	262	27.004	2.863	27.968	1.00	38.42
ATOM	1973	N	GLN	A	263	24.851	2.454	27.494	1.00	29.52
ATOM	1974	CA	GLN	A	263	25.225	1.863	26.204	1.00	35.18
ATOM	1975	CB	GLN	A	263	24.015	1.216	25.545	1.00	34.97

**FIGURE 140**



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ATOM	1976	CG	GLN	A	263	23.632	-0.140	26.125	1.00	36.78
ATOM	1977	CD	GLN	A	263	22.277	-0.630	25.661	1.00	34.45
ATOM	1978	OE1	GLN	A	263	22.167	-1.327	24.653	1.00	32.02
ATOM	1979	NE2	GLN	A	263	21.219	-0.276	26.388	1.00	29.68
ATOM	1980	C	GLN	A	263	25.867	2.912	25.300	1.00	38.62
ATOM	1981	O	GLN	A	263	26.927	2.694	24.702	1.00	44.23
ATOM	1982	N	GLN	A	264	25.255	4.084	25.187	1.00	40.04
ATOM	1983	CA	GLN	A	264	25.848	5.189	24.439	1.00	37.35
ATOM	1984	CB	GLN	A	264	25.018	6.461	24.597	1.00	30.80
ATOM	1985	CG	GLN	A	264	23.739	6.499	23.777	1.00	28.49
ATOM	1986	CD	GLN	A	264	22.842	7.650	24.195	1.00	36.13
ATOM	1987	OE1	GLN	A	264	23.318	8.630	24.778	1.00	35.61
ATOM	1988	NE2	GLN	A	264	21.552	7.519	23.905	1.00	30.19
ATOM	1989	C	GLN	A	264	27.280	5.460	24.900	1.00	46.87
ATOM	1990	O	GLN	A	264	28.192	5.539	24.076	1.00	59.11
ATOM	1991	N	LEU	A	265	27.474	5.599	26.210	1.00	44.30
ATOM	1992	CA	LEU	A	265	28.805	5.808	26.774	1.00	44.22
ATOM	1993	CB	LEU	A	265	28.794	5.779	28.295	1.00	47.83
ATOM	1994	CG	LEU	A	265	28.082	6.900	29.043	1.00	50.56
ATOM	1995	CD1	LEU	A	265	28.140	6.641	30.544	1.00	39.48
ATOM	1996	CD2	LEU	A	265	28.678	8.255	28.696	1.00	54.16
ATOM	1997	C	LEU	A	265	29.763	4.736	26.265	1.00	45.05
ATOM	1998	O	LEU	A	265	30.912	5.011	25.925	1.00	54.65
ATOM	1999	N	ASP	A	266	29.280	3.495	26.209	1.00	40.79
ATOM	2000	CA	ASP	A	266	30.137	2.440	25.670	1.00	47.27
ATOM	2001	CB	ASP	A	266	29.739	1.083	26.257	1.00	43.47
ATOM	2002	CG	ASP	A	266	30.102	0.960	27.721	1.00	44.36
ATOM	2003	OD1	ASP	A	266	31.196	1.428	28.101	1.00	58.24
ATOM	2004	OD2	ASP	A	266	29.297	0.391	28.488	1.00	53.34
ATOM	2005	C	ASP	A	266	30.066	2.396	24.154	1.00	58.50
ATOM	2006	O	ASP	A	266	30.476	1.429	23.506	1.00	56.64
ATOM	2007	N	SER	A	267	29.538	3.434	23.497	1.00	67.18
ATOM	2008	CA	SER	A	267	29.465	3.282	22.038	1.00	73.64
ATOM	2009	CB	SER	A	267	28.110	2.671	21.667	1.00	75.02
ATOM	2010	OG	SER	A	267	28.161	1.258	21.786	1.00	72.08
ATOM	2011	C	SER	A	267	29.693	4.592	21.301	1.00	81.56
ATOM	2012	O	SER	A	267	30.504	4.666	20.376	1.00	96.45
ATOM	2013	N	LYS	A	268	28.971	5.630	21.705	1.00	82.73
ATOM	2014	CA	LYS	A	268	29.039	6.931	21.064	1.00	81.39
ATOM	2015	CB	LYS	A	268	27.736	7.709	21.286	1.00	92.60
ATOM	2016	CG	LYS	A	268	26.518	7.115	20.597	1.00	98.30
ATOM	2017	CD	LYS	A	268	25.516	8.187	20.194	1.00	99.41
ATOM	2018	CE	LYS	A	268	25.288	9.191	21.312	1.00	97.43
ATOM	2019	NZ	LYS	A	268	23.896	9.151	21.836	1.00	86.39
ATOM	2020	C	LYS	A	268	30.209	7.766	21.583	1.00	67.12
ATOM	2021	O	LYS	A	268	30.930	7.340	22.478	1.00	61.30
ATOM	2022	N	ASP	A	269	30.340	8.941	20.995	1.00	57.55
ATOM	2023	CA	ASP	A	269	31.277	9.986	21.380	1.00	61.48
ATOM	2024	CB	ASP	A	269	31.994	10.514	20.137	1.00	71.27
ATOM	2025	CG	ASP	A	269	31.482	9.789	18.899	1.00	80.60
ATOM	2026	OD1	ASP	A	269	32.270	9.060	18.261	1.00	87.05
ATOM	2027	OD2	ASP	A	269	30.283	9.954	18.585	1.00	82.09

**FIGURE 141**

ATOM	2028	C	ASP	A	269	30.498	11.081	22.096	1.00	54.39
ATOM	2029	O	ASP	A	269	30.997	12.070	22.621	1.00	37.16
ATOM	2030	N	SER	A	270	29.183	10.843	22.108	1.00	44.05
ATOM	2031	CA	SER	A	270	28.290	11.754	22.805	1.00	48.15
ATOM	2032	CB	SER	A	270	27.593	12.687	21.814	1.00	54.66
ATOM	2033	OG	SER	A	270	27.367	12.009	20.588	1.00	61.37
ATOM	2034	C	SER	A	270	27.261	10.971	23.609	1.00	44.27
ATOM	2035	O	SER	A	270	27.045	9.781	23.410	1.00	33.61
ATOM	2036	N	VAL	A	271	26.613	11.652	24.544	1.00	41.56
ATOM	2037	CA	VAL	A	271	25.550	10.966	25.288	1.00	44.74
ATOM	2038	CB	VAL	A	271	25.984	10.636	26.722	1.00	43.78
ATOM	2039	CG1	VAL	A	271	26.585	11.844	27.428	1.00	22.16
ATOM	2040	CG2	VAL	A	271	24.822	10.084	27.544	1.00	24.65
ATOM	2041	C	VAL	A	271	24.316	11.852	25.185	1.00	43.38
ATOM	2042	O	VAL	A	271	24.418	13.084	25.177	1.00	32.23
ATOM	2043	N	ASP	A	272	23.146	11.232	25.058	1.00	35.09
ATOM	2044	CA	ASP	A	272	21.929	12.022	24.874	1.00	36.34
ATOM	2045	CB	ASP	A	272	21.317	11.723	23.500	1.00	28.68
ATOM	2046	CG	ASP	A	272	20.345	12.806	23.075	1.00	25.29
ATOM	2047	OD1	ASP	A	272	20.363	13.875	23.726	1.00	33.02
ATOM	2048	OD2	ASP	A	272	19.581	12.595	22.112	1.00	37.57
ATOM	2049	C	ASP	A	272	20.936	11.754	25.993	1.00	33.69
ATOM	2050	O	ASP	A	272	19.969	11.023	25.818	1.00	35.34
ATOM	2051	N	ILE	A	273	21.171	12.338	27.166	1.00	29.39
ATOM	2052	CA	ILE	A	273	20.262	12.106	28.281	1.00	31.17
ATOM	2053	CB	ILE	A	273	20.840	12.632	29.611	1.00	33.58
ATOM	2054	CG1	ILE	A	273	22.112	11.900	30.045	1.00	34.59
ATOM	2055	CD1	ILE	A	273	22.785	12.475	31.270	1.00	32.68
ATOM	2056	CG2	ILE	A	273	19.793	12.604	30.714	1.00	21.45
ATOM	2057	C	ILE	A	273	18.909	12.754	28.018	1.00	36.45
ATOM	2058	O	ILE	A	273	17.873	12.152	28.319	1.00	29.72
ATOM	2059	N	TYR	A	274	18.921	13.967	27.465	1.00	23.18
ATOM	2060	CA	TYR	A	274	17.658	14.663	27.204	1.00	23.24
ATOM	2061	CB	TYR	A	274	17.927	16.065	26.659	1.00	21.30
ATOM	2062	CG	TYR	A	274	16.720	16.885	26.286	1.00	28.11
ATOM	2063	CD1	TYR	A	274	16.099	17.722	27.205	1.00	30.12
ATOM	2064	CE1	TYR	A	274	14.991	18.475	26.855	1.00	36.51
ATOM	2065	CZ	TYR	A	274	14.486	18.401	25.576	1.00	39.07
ATOM	2066	OH	TYR	A	274	13.384	19.137	25.206	1.00	39.75
ATOM	2067	CE2	TYR	A	274	15.082	17.578	24.641	1.00	33.12
ATOM	2068	CD2	TYR	A	274	16.183	16.837	25.003	1.00	30.11
ATOM	2069	C	TYR	A	274	16.810	13.851	26.229	1.00	23.51
ATOM	2070	O	TYR	A	274	15.604	13.715	26.425	1.00	26.03
ATOM	2071	N	GLY	A	275	17.435	13.350	25.181	1.00	21.12
ATOM	2072	CA	GLY	A	275	16.774	12.633	24.100	1.00	24.69
ATOM	2073	C	GLY	A	275	16.230	11.296	24.575	1.00	30.05
ATOM	2074	O	GLY	A	275	15.206	10.793	24.115	1.00	26.82
ATOM	2075	N	ALA	A	276	16.950	10.705	25.531	1.00	28.67
ATOM	2076	CA	ALA	A	276	16.477	9.436	26.087	1.00	28.22
ATOM	2077	CB	ALA	A	276	17.538	8.828	26.980	1.00	23.79
ATOM	2078	C	ALA	A	276	15.165	9.685	26.816	1.00	25.48
ATOM	2079	O	ALA	A	276	14.174	8.993	26.612	1.00	21.68

**FIGURE 142**

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ATOM	2080	N	VAL	A	277	15.134	10.709	27.669	1.00	19.63
ATOM	2081	CA	VAL	A	277	13.928	10.960	28.450	1.00	18.94
ATOM	2082	CB	VAL	A	277	14.184	11.957	29.592	1.00	18.63
ATOM	2083	CG1	VAL	A	277	12.919	12.193	30.417	1.00	19.37
ATOM	2084	CG2	VAL	A	277	15.308	11.457	30.497	1.00	23.87
ATOM	2085	C	VAL	A	277	12.820	11.458	27.538	1.00	22.49
ATOM	2086	O	VAL	A	277	11.642	11.184	27.731	1.00	18.77
ATOM	2087	N	HIS	A	278	13.225	12.224	26.522	1.00	20.21
ATOM	2088	CA	HIS	A	278	12.220	12.729	25.587	1.00	20.77
ATOM	2089	CB	HIS	A	278	12.888	13.637	24.538	1.00	19.46
ATOM	2090	CG	HIS	A	278	11.915	14.109	23.501	1.00	27.73
ATOM	2091	ND1	HIS	A	278	11.599	13.361	22.387	1.00	25.43
ATOM	2092	CE1	HIS	A	278	10.714	14.023	21.661	1.00	26.78
ATOM	2093	NE2	HIS	A	278	10.441	15.169	22.258	1.00	30.40
ATOM	2094	CD2	HIS	A	278	11.180	15.243	23.412	1.00	29.32
ATOM	2095	C	HIS	A	278	11.505	11.529	24.958	1.00	17.28
ATOM	2096	O	HIS	A	278	10.282	11.474	24.934	1.00	19.03
ATOM	2097	N	ASP	A	279	12.283	10.576	24.448	1.00	19.78
ATOM	2098	CA	ASP	A	279	11.736	9.408	23.766	1.00	23.11
ATOM	2099	CB	ASP	A	279	12.830	8.508	23.192	1.00	31.32
ATOM	2100	CG	ASP	A	279	12.445	7.760	21.931	1.00	41.53
ATOM	2101	OD1	ASP	A	279	11.649	8.288	21.124	1.00	44.27
ATOM	2102	OD2	ASP	A	279	12.924	6.627	21.689	1.00	31.21
ATOM	2103	C	ASP	A	279	10.860	8.613	24.733	1.00	16.22
ATOM	2104	O	ASP	A	279	9.794	8.139	24.359	1.00	17.27
ATOM	2105	N	LEU	A	280	11.327	8.486	25.974	1.00	18.29
ATOM	2106	CA	LEU	A	280	10.517	7.786	26.974	1.00	19.74
ATOM	2107	CB	LEU	A	280	11.270	7.751	28.301	1.00	15.55
ATOM	2108	CG	LEU	A	280	12.388	6.723	28.463	1.00	26.78
ATOM	2109	CD1	LEU	A	280	13.190	6.944	29.734	1.00	23.32
ATOM	2110	CD2	LEU	A	280	11.836	5.303	28.501	1.00	32.51
ATOM	2111	C	LEU	A	280	9.162	8.456	27.109	1.00	19.74
ATOM	2112	O	LEU	A	280	8.100	7.831	27.099	1.00	15.47
ATOM	2113	N	ARG	A	281	9.152	9.785	27.240	1.00	17.32
ATOM	2114	CA	ARG	A	281	7.931	10.535	27.402	1.00	18.47
ATOM	2115	CB	ARG	A	281	8.195	12.047	27.522	1.00	21.28
ATOM	2116	CG	ARG	A	281	9.115	12.436	28.661	1.00	29.75
ATOM	2117	CD	ARG	A	281	8.318	12.580	29.951	1.00	34.02
ATOM	2118	NE	ARG	A	281	9.199	13.015	31.026	1.00	37.36
ATOM	2119	CZ	ARG	A	281	8.851	13.737	32.071	1.00	39.23
ATOM	2120	NH1	ARG	A	281	7.595	14.129	32.206	1.00	60.17
ATOM	2121	NH2	ARG	A	281	9.769	14.055	32.972	1.00	36.32
ATOM	2122	C	ARG	A	281	6.987	10.381	26.220	1.00	16.87
ATOM	2123	O	ARG	A	281	5.785	10.568	26.424	1.00	18.99
ATOM	2124	N	LEU	A	282	7.549	10.111	25.034	1.00	15.85
ATOM	2125	CA	LEU	A	282	6.620	9.977	23.899	1.00	17.78
ATOM	2126	CB	LEU	A	282	7.338	9.907	22.559	1.00	21.15
ATOM	2127	CG	LEU	A	282	8.060	11.126	21.997	1.00	32.88
ATOM	2128	CD1	LEU	A	282	8.732	10.767	20.673	1.00	28.74
ATOM	2129	CD2	LEU	A	282	7.133	12.311	21.783	1.00	24.88
ATOM	2130	C	LEU	A	282	5.763	8.721	24.078	1.00	18.42
ATOM	2131	O	LEU	A	282	4.658	8.631	23.532	1.00	21.04

**FIGURE 143**

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ATOM	2132	N	HIS	A	283	6.263	7.739	24.823	1.00	16.75
ATOM	2133	CA	HIS	A	283	5.574	6.450	24.905	1.00	17.03
ATOM	2134	CB	HIS	A	283	6.621	5.350	24.644	1.00	17.45
ATOM	2135	CG	HIS	A	283	7.133	5.464	23.234	1.00	19.75
ATOM	2136	ND1	HIS	A	283	6.502	4.868	22.169	1.00	24.70
ATOM	2137	CE1	HIS	A	283	7.156	5.149	21.056	1.00	24.61
ATOM	2138	NE2	HIS	A	283	8.191	5.913	21.353	1.00	23.33
ATOM	2139	CD2	HIS	A	283	8.186	6.126	22.714	1.00	25.41
ATOM	2140	C	HIS	A	283	4.831	6.199	26.209	1.00	17.38
ATOM	2141	O	HIS	A	283	3.932	5.336	26.249	1.00	12.95
ATOM	2142	N	ARG	A	284	5.125	6.923	27.282	1.00	12.46
ATOM	2143	CA	ARG	A	284	4.367	6.792	28.527	1.00	12.55
ATOM	2144	CB	ARG	A	284	4.869	5.622	29.366	1.00	13.17
ATOM	2145	CG	ARG	A	284	4.072	5.322	30.633	1.00	10.87
ATOM	2146	CD	ARG	A	284	4.464	3.909	31.097	1.00	17.92
ATOM	2147	NE	ARG	A	284	3.933	3.546	32.404	1.00	11.92
ATOM	2148	CZ	ARG	A	284	2.752	2.965	32.601	1.00	15.19
ATOM	2149	NH1	ARG	A	284	1.953	2.675	31.577	1.00	12.14
ATOM	2150	NH2	ARG	A	284	2.348	2.666	33.837	1.00	11.55
ATOM	2151	C	ARG	A	284	4.496	8.059	29.372	1.00	12.80
ATOM	2152	O	ARG	A	284	5.555	8.665	29.370	1.00	13.52
ATOM	2153	N	VAL	A	285	3.435	8.425	30.059	1.00	17.40
ATOM	2154	CA	VAL	A	285	3.419	9.665	30.847	1.00	15.70
ATOM	2155	CB	VAL	A	285	1.998	9.930	31.379	1.00	18.07
ATOM	2156	CG1	VAL	A	285	1.657	8.972	32.521	1.00	14.53
ATOM	2157	CG2	VAL	A	285	1.848	11.380	31.837	1.00	21.60
ATOM	2158	C	VAL	A	285	4.429	9.640	31.982	1.00	24.82
ATOM	2159	O	VAL	A	285	4.767	8.581	32.511	1.00	18.02
ATOM	2160	N	HIS	A	286	4.926	10.823	32.336	1.00	22.81
ATOM	2161	CA	HIS	A	286	5.818	11.084	33.440	1.00	20.84
ATOM	2162	CB	HIS	A	286	5.069	10.872	34.768	1.00	24.11
ATOM	2163	CG	HIS	A	286	3.818	11.663	34.965	1.00	28.34
ATOM	2164	ND1	HIS	A	286	3.763	13.039	34.936	1.00	28.84
ATOM	2165	CE1	HIS	A	286	2.526	13.448	35.147	1.00	28.83
ATOM	2166	NE2	HIS	A	286	1.766	12.380	35.317	1.00	32.75
ATOM	2167	CD2	HIS	A	286	2.548	11.255	35.216	1.00	26.94
ATOM	2168	C	HIS	A	286	7.084	10.232	33.510	1.00	21.64
ATOM	2169	O	HIS	A	286	7.661	10.218	34.615	1.00	26.93
ATOM	2170	N	MET	A	287	7.550	9.548	32.468	1.00	13.96
ATOM	2171	CA	MET	A	287	8.792	8.783	32.560	1.00	13.56
ATOM	2172	CB	MET	A	287	9.223	8.171	31.264	1.00	16.67
ATOM	2173	CG	MET	A	287	8.741	6.954	30.564	1.00	32.18
ATOM	2174	SD	MET	A	287	8.371	5.520	31.623	1.00	31.45
ATOM	2175	CE	MET	A	287	6.873	6.119	32.287	1.00	12.41
ATOM	2176	C	MET	A	287	9.919	9.708	33.070	1.00	31.47
ATOM	2177	O	MET	A	287	10.136	10.813	32.556	1.00	27.35
ATOM	2178	N	VAL	A	288	10.581	9.213	34.107	1.00	19.43
ATOM	2179	CA	VAL	A	288	11.539	9.968	34.906	1.00	20.51
ATOM	2180	CB	VAL	A	288	12.719	10.500	34.089	1.00	18.73
ATOM	2181	CG1	VAL	A	288	13.598	11.361	34.989	1.00	27.60
ATOM	2182	CG2	VAL	A	288	13.506	9.344	33.475	1.00	16.71
ATOM	2183	C	VAL	A	288	10.780	11.107	35.584	1.00	24.09

**FIGURE 144**

ATOM	2184	O	VAL	A	288	10.586	12.174	35.013	1.00	30.01
ATOM	2185	N	GLN	A	289	10.325	10.820	36.799	1.00	20.54
ATOM	2186	CA	GLN	A	289	9.237	11.559	37.407	1.00	28.07
ATOM	2187	CB	GLN	A	289	8.381	10.595	38.239	1.00	31.79
ATOM	2188	CG	GLN	A	289	7.078	11.185	38.754	1.00	34.58
ATOM	2189	CD	GLN	A	289	7.101	11.363	40.266	1.00	35.98
ATOM	2190	OE1	GLN	A	289	7.791	10.623	40.972	1.00	26.51
ATOM	2191	NE2	GLN	A	289	6.346	12.347	40.753	1.00	36.09
ATOM	2192	C	GLN	A	289	9.689	12.720	38.278	1.00	33.05
ATOM	2193	O	GLN	A	289	8.858	13.599	38.525	1.00	35.10
ATOM	2194	N	THR	A	290	10.936	12.736	38.736	1.00	30.88
ATOM	2195	CA	THR	A	290	11.372	13.920	39.491	1.00	28.02
ATOM	2196	CB	THR	A	290	11.590	13.611	40.984	1.00	29.29
ATOM	2197	OG1	THR	A	290	12.661	12.677	41.160	1.00	35.40
ATOM	2198	CG2	THR	A	290	10.331	12.980	41.563	1.00	24.35
ATOM	2199	C	THR	A	290	12.639	14.518	38.909	1.00	23.50
ATOM	2200	O	THR	A	290	13.496	13.903	38.287	1.00	21.72
ATOM	2201	N	GLU	A	291	12.806	15.830	39.108	1.00	33.06
ATOM	2202	CA	GLU	A	291	13.996	16.481	38.534	1.00	26.38
ATOM	2203	CB	GLU	A	291	13.849	17.986	38.728	1.00	36.13
ATOM	2204	CG	GLU	A	291	14.794	18.656	39.697	1.00	47.55
ATOM	2205	CD	GLU	A	291	15.133	20.079	39.279	1.00	50.62
ATOM	2206	OE1	GLU	A	291	16.237	20.541	39.645	1.00	58.58
ATOM	2207	OE2	GLU	A	291	14.306	20.719	38.593	1.00	33.56
ATOM	2208	C	GLU	A	291	15.255	15.901	39.151	1.00	20.43
ATOM	2209	O	GLU	A	291	16.325	15.881	38.543	1.00	24.26
ATOM	2210	N	CYS	A	292	15.139	15.407	40.386	1.00	20.50
ATOM	2211	CA	CYS	A	292	16.308	14.825	41.039	1.00	19.18
ATOM	2212	CB	CYS	A	292	16.040	14.535	42.517	1.00	31.41
ATOM	2213	SG	CYS	A	292	17.552	14.159	43.444	1.00	101.20
ATOM	2214	C	CYS	A	292	16.721	13.542	40.335	1.00	20.87
ATOM	2215	O	CYS	A	292	17.899	13.219	40.202	1.00	24.99
ATOM	2216	N	GLN	A	293	15.718	12.795	39.862	1.00	26.29
ATOM	2217	CA	GLN	A	293	16.062	11.613	39.055	1.00	22.01
ATOM	2218	CB	GLN	A	293	14.785	10.827	38.720	1.00	22.44
ATOM	2219	CG	GLN	A	293	14.242	10.156	39.972	1.00	21.37
ATOM	2220	CD	GLN	A	293	12.831	9.628	39.838	1.00	24.27
ATOM	2221	OE1	GLN	A	293	12.134	9.855	38.848	1.00	23.20
ATOM	2222	NE2	GLN	A	293	12.439	8.904	40.884	1.00	18.53
ATOM	2223	C	GLN	A	293	16.816	12.029	37.805	1.00	18.20
ATOM	2224	O	GLN	A	293	17.797	11.408	37.389	1.00	21.10
ATOM	2225	N	TYR	A	294	16.355	13.121	37.196	1.00	20.29
ATOM	2226	CA	TYR	A	294	17.034	13.649	36.006	1.00	17.93
ATOM	2227	CB	TYR	A	294	16.239	14.824	35.456	1.00	20.72
ATOM	2228	CG	TYR	A	294	16.600	15.299	34.066	1.00	22.13
ATOM	2229	CD1	TYR	A	294	16.441	14.487	32.949	1.00	22.03
ATOM	2230	CE1	TYR	A	294	16.767	14.926	31.680	1.00	27.01
ATOM	2231	CZ	TYR	A	294	17.259	16.212	31.527	1.00	31.26
ATOM	2232	OH	TYR	A	294	17.590	16.669	30.275	1.00	31.95
ATOM	2233	CE2	TYR	A	294	17.426	17.043	32.614	1.00	24.60
ATOM	2234	CD2	TYR	A	294	17.093	16.581	33.871	1.00	24.21
ATOM	2235	C	TYR	A	294	18.457	14.063	36.353	1.00	26.00

**FIGURE 145**

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ATOM	2236	O	TYR A 294	19.401	13.726	35.643	1.00	24.45
ATOM	2237	N	VAL A 295	18.626	14.790	37.467	1.00	27.38
ATOM	2238	CA	VAL A 295	19.981	15.130	37.908	1.00	26.38
ATOM	2239	CB	VAL A 295	19.989	15.931	39.225	1.00	21.43
ATOM	2240	CG1	VAL A 295	21.402	15.984	39.784	1.00	28.13
ATOM	2241	CG2	VAL A 295	19.428	17.326	39.000	1.00	34.94
ATOM	2242	C	VAL A 295	20.839	13.888	38.136	1.00	21.34
ATOM	2243	O	VAL A 295	21.991	13.837	37.730	1.00	23.60
ATOM	2244	N	TYR A 296	20.296	12.876	38.792	1.00	22.55
ATOM	2245	CA	TYR A 296	20.976	11.609	39.039	1.00	27.13
ATOM	2246	CB	TYR A 296	20.011	10.665	39.773	1.00	19.15
ATOM	2247	CG	TYR A 296	20.587	9.329	40.167	1.00	22.85
ATOM	2248	CD1	TYR A 296	21.493	9.191	41.211	1.00	21.56
ATOM	2249	CE1	TYR A 296	22.022	7.967	41.576	1.00	20.08
ATOM	2250	CZ	TYR A 296	21.628	6.841	40.876	1.00	22.87
ATOM	2251	OH	TYR A 296	22.136	5.601	41.213	1.00	22.11
ATOM	2252	CE2	TYR A 296	20.734	6.954	39.842	1.00	23.68
ATOM	2253	CD2	TYR A 296	20.211	8.179	39.483	1.00	25.13
ATOM	2254	C	TYR A 296	21.495	10.947	37.771	1.00	22.49
ATOM	2255	O	TYR A 296	22.607	10.406	37.752	1.00	24.52
ATOM	2256	N	LEU A 297	20.734	10.960	36.675	1.00	24.50
ATOM	2257	CA	LEU A 297	21.265	10.390	35.437	1.00	19.36
ATOM	2258	CB	LEU A 297	20.278	10.510	34.275	1.00	22.49
ATOM	2259	CG	LEU A 297	18.987	9.697	34.406	1.00	21.19
ATOM	2260	CD1	LEU A 297	17.931	10.172	33.424	1.00	18.99
ATOM	2261	CD2	LEU A 297	19.330	8.224	34.235	1.00	22.58
ATOM	2262	C	LEU A 297	22.563	11.092	35.039	1.00	22.83
ATOM	2263	O	LEU A 297	23.545	10.455	34.672	1.00	26.28
ATOM	2264	N	HIS A 298	22.539	12.432	35.118	1.00	27.23
ATOM	2265	CA	HIS A 298	23.760	13.165	34.773	1.00	26.75
ATOM	2266	CB	HIS A 298	23.526	14.672	34.793	1.00	25.81
ATOM	2267	CG	HIS A 298	22.724	15.186	33.644	1.00	24.47
ATOM	2268	ND1	HIS A 298	21.358	15.061	33.562	1.00	26.77
ATOM	2269	CE1	HIS A 298	20.938	15.617	32.434	1.00	31.41
ATOM	2270	NE2	HIS A 298	21.982	16.099	31.780	1.00	22.95
ATOM	2271	CD2	HIS A 298	23.105	15.841	32.519	1.00	26.28
ATOM	2272	C	HIS A 298	24.877	12.814	35.749	1.00	24.86
ATOM	2273	O	HIS A 298	26.009	12.584	35.342	1.00	32.20
ATOM	2274	N	GLN A 299	24.555	12.775	37.044	1.00	20.61
ATOM	2275	CA	GLN A 299	25.600	12.405	38.005	1.00	27.30
ATOM	2276	CB	GLN A 299	25.077	12.420	39.440	1.00	29.89
ATOM	2277	CG	GLN A 299	24.644	13.789	39.945	1.00	29.83
ATOM	2278	CD	GLN A 299	24.030	13.768	41.327	1.00	39.67
ATOM	2279	OE1	GLN A 299	23.233	12.894	41.678	1.00	50.54
ATOM	2280	NE2	GLN A 299	24.382	14.755	42.148	1.00	42.66
ATOM	2281	C	GLN A 299	26.174	11.033	37.665	1.00	30.62
ATOM	2282	O	GLN A 299	27.380	10.808	37.781	1.00	24.65
ATOM	2283	N	CYS A 300	25.311	10.110	37.244	1.00	32.98
ATOM	2284	CA	CYS A 300	25.750	8.773	36.865	1.00	31.19
ATOM	2285	CB	CYS A 300	24.539	7.921	36.453	1.00	27.79
ATOM	2286	SG	CYS A 300	23.647	7.209	37.864	1.00	24.58
ATOM	2287	C	CYS A 300	26.765	8.828	35.727	1.00	34.76

**FIGURE 146**

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ATOM	2288	O	CYS	A	300	27.822	8.196	35.729	1.00	23.29
ATOM	2289	N	VAL	A	301	26.420	9.615	34.708	1.00	32.86
ATOM	2290	CA	VAL	A	301	27.302	9.758	33.561	1.00	33.82
ATOM	2291	CB	VAL	A	301	26.630	10.582	32.444	1.00	31.77
ATOM	2292	CG1	VAL	A	301	27.618	10.894	31.330	1.00	32.91
ATOM	2293	CG2	VAL	A	301	25.418	9.821	31.923	1.00	36.31
ATOM	2294	C	VAL	A	301	28.618	10.429	33.941	1.00	30.73
ATOM	2295	O	VAL	A	301	29.692	10.022	33.501	1.00	35.82
ATOM	2296	N	ARG	A	302	28.541	11.468	34.763	1.00	31.17
ATOM	2297	CA	ARG	A	302	29.790	12.172	35.086	1.00	30.26
ATOM	2298	CB	ARG	A	302	29.484	13.422	35.894	1.00	32.62
ATOM	2299	CG	ARG	A	302	30.689	14.073	36.564	1.00	30.76
ATOM	2300	CD	ARG	A	302	30.203	14.793	37.826	1.00	35.56
ATOM	2301	NE	ARG	A	302	29.679	13.851	38.796	1.00	36.12
ATOM	2302	CZ	ARG	A	302	28.999	14.106	39.898	1.00	43.20
ATOM	2303	NH1	ARG	A	302	28.702	15.351	40.255	1.00	58.84
ATOM	2304	NH2	ARG	A	302	28.601	13.098	40.671	1.00	37.42
ATOM	2305	C	ARG	A	302	30.720	11.213	35.811	1.00	38.00
ATOM	2306	O	ARG	A	302	31.934	11.187	35.602	1.00	46.79
ATOM	2307	N	ASP	A	303	30.137	10.376	36.668	1.00	34.78
ATOM	2308	CA	ASP	A	303	30.980	9.431	37.404	1.00	31.64
ATOM	2309	CB	ASP	A	303	30.186	8.844	38.579	1.00	32.29
ATOM	2310	CG	ASP	A	303	29.766	9.934	39.553	1.00	41.64
ATOM	2311	OD1	ASP	A	303	30.143	11.104	39.315	1.00	48.79
ATOM	2312	OD2	ASP	A	303	29.060	9.645	40.542	1.00	39.40
ATOM	2313	C	ASP	A	303	31.529	8.359	36.484	1.00	33.95
ATOM	2314	O	ASP	A	303	32.681	7.925	36.612	1.00	41.56
ATOM	2315	N	VAL	A	304	30.755	7.875	35.510	1.00	31.21
ATOM	2316	CA	VAL	A	304	31.349	6.840	34.658	1.00	39.08
ATOM	2317	CB	VAL	A	304	30.371	6.167	33.685	1.00	44.47
ATOM	2318	CG1	VAL	A	304	31.089	5.084	32.889	1.00	27.60
ATOM	2319	CG2	VAL	A	304	29.173	5.541	34.381	1.00	27.78
ATOM	2320	C	VAL	A	304	32.485	7.483	33.859	1.00	39.60
ATOM	2321	O	VAL	A	304	33.515	6.865	33.615	1.00	37.42
ATOM	2322	N	LEU	A	305	32.257	8.736	33.484	1.00	36.24
ATOM	2323	CA	LEU	A	305	33.241	9.491	32.714	1.00	42.98
ATOM	2324	CB	LEU	A	305	32.620	10.746	32.093	1.00	39.34
ATOM	2325	CG	LEU	A	305	31.658	10.512	30.929	1.00	34.01
ATOM	2326	CD1	LEU	A	305	31.183	11.828	30.327	1.00	28.76
ATOM	2327	CD2	LEU	A	305	32.315	9.625	29.876	1.00	34.10
ATOM	2328	C	LEU	A	305	34.425	9.863	33.598	1.00	42.82
ATOM	2329	O	LEU	A	305	35.578	9.705	33.198	1.00	54.32
ATOM	2330	N	ARG	A	306	34.150	10.353	34.805	1.00	41.87
ATOM	2331	CA	ARG	A	306	35.253	10.741	35.681	1.00	51.42
ATOM	2332	CB	ARG	A	306	34.725	11.361	36.979	1.00	50.76
ATOM	2333	CG	ARG	A	306	34.163	12.761	36.809	1.00	57.18
ATOM	2334	CD	ARG	A	306	33.547	13.297	38.093	1.00	63.89
ATOM	2335	NE	ARG	A	306	33.871	14.701	38.302	1.00	65.68
ATOM	2336	CZ	ARG	A	306	33.491	15.494	39.287	1.00	66.42
ATOM	2337	NH1	ARG	A	306	32.710	15.080	40.276	1.00	39.94
ATOM	2338	NH2	ARG	A	306	33.906	16.759	39.290	1.00	95.50
ATOM	2339	C	ARG	A	306	36.161	9.553	35.988	1.00	65.39

**FIGURE 147**

ATOM	2340	O	ARG	A	306	37.371	9.710	36.183	1.00	79.48
ATOM	2341	N	ALA	A	307	35.593	8.350	36.039	1.00	63.13
ATOM	2342	CA	ALA	A	307	36.358	7.181	36.463	1.00	59.88
ATOM	2343	CB	ALA	A	307	35.424	6.123	37.032	1.00	62.57
ATOM	2344	C	ALA	A	307	37.190	6.603	35.327	1.00	63.48
ATOM	2345	O	ALA	A	307	38.185	5.922	35.576	1.00	71.07
ATOM	2346	N	ARG	A	308	36.778	6.878	34.095	1.00	66.80
ATOM	2347	CA	ARG	A	308	37.460	6.357	32.916	1.00	63.53
ATOM	2348	CB	ARG	A	308	36.431	5.843	31.910	1.00	64.58
ATOM	2349	CG	ARG	A	308	35.909	6.905	30.956	1.00	73.99
ATOM	2350	CD	ARG	A	308	34.390	6.946	30.959	1.00	81.85
ATOM	2351	NE	ARG	A	308	33.814	5.939	30.070	1.00	85.42
ATOM	2352	CZ	ARG	A	308	33.523	6.167	28.794	1.00	82.34
ATOM	2353	NH1	ARG	A	308	33.757	7.365	28.275	1.00	72.00
ATOM	2354	NH2	ARG	A	308	33.001	5.198	28.053	1.00	74.84
ATOM	2355	C	ARG	A	308	38.356	7.408	32.272	1.00	66.32
ATOM	2356	O	ARG	A	308	39.461	7.117	31.813	1.00	55.04
ATOM	2357	N	THR	B	20	44.023	9.553	52.894	1.00	44.19
ATOM	2358	CA	THR	B	20	43.083	8.735	53.658	1.00	52.64
ATOM	2359	CB	THR	B	20	43.790	7.980	54.795	1.00	59.51
ATOM	2360	OG1	THR	B	20	45.173	7.808	54.450	1.00	74.31
ATOM	2361	CG2	THR	B	20	43.208	6.590	54.985	1.00	67.07
ATOM	2362	C	THR	B	20	41.947	9.580	54.229	1.00	46.00
ATOM	2363	O	THR	B	20	42.162	10.580	54.911	1.00	47.42
ATOM	2364	N	SER	B	21	40.725	9.158	53.926	1.00	41.46
ATOM	2365	CA	SER	B	21	39.496	9.819	54.320	1.00	39.05
ATOM	2366	CB	SER	B	21	39.040	10.796	53.232	1.00	49.38
ATOM	2367	OG	SER	B	21	37.654	10.651	52.968	1.00	64.42
ATOM	2368	C	SER	B	21	38.381	8.816	54.580	1.00	45.97
ATOM	2369	O	SER	B	21	38.392	7.690	54.078	1.00	58.15
ATOM	2370	N	CYS	B	22	37.384	9.218	55.363	1.00	49.85
ATOM	2371	CA	CYS	B	22	36.237	8.334	55.572	1.00	50.77
ATOM	2372	CB	CYS	B	22	36.423	7.465	56.816	1.00	55.65
ATOM	2373	SG	CYS	B	22	35.067	6.307	57.123	1.00	88.47
ATOM	2374	C	CYS	B	22	34.951	9.143	55.677	1.00	45.29
ATOM	2375	O	CYS	B	22	34.411	9.331	56.767	1.00	58.34
ATOM	2376	N	PRO	B	23	34.467	9.632	54.543	1.00	39.55
ATOM	2377	CA	PRO	B	23	33.212	10.389	54.528	1.00	41.51
ATOM	2378	CB	PRO	B	23	33.049	10.758	53.050	1.00	40.09
ATOM	2379	CG	PRO	B	23	34.441	10.713	52.503	1.00	41.78
ATOM	2380	CD	PRO	B	23	35.072	9.531	53.203	1.00	44.99
ATOM	2381	C	PRO	B	23	32.027	9.552	55.000	1.00	44.21
ATOM	2382	O	PRO	B	23	31.963	8.335	54.814	1.00	52.40
ATOM	2383	N	ILE	B	24	31.065	10.223	55.624	1.00	44.34
ATOM	2384	CA	ILE	B	24	29.827	9.587	56.044	1.00	48.20
ATOM	2385	CB	ILE	B	24	29.721	9.319	57.555	1.00	45.03
ATOM	2386	CG1	ILE	B	24	31.043	9.095	58.282	1.00	44.77
ATOM	2387	CD1	ILE	B	24	31.305	10.113	59.373	1.00	61.25
ATOM	2388	CG2	ILE	B	24	28.778	8.151	57.813	1.00	56.04
ATOM	2389	C	ILE	B	24	28.646	10.483	55.663	1.00	48.34
ATOM	2390	O	ILE	B	24	28.590	11.626	56.128	1.00	36.96
ATOM	2391	N	LYS	B	25	27.747	9.948	54.848	1.00	44.27

**FIGURE 148**



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ATOM	2392	CA	LYS	B	25	26.540	10.698	54.492	1.00	52.98
ATOM	2393	CB	LYS	B	25	25.594	9.846	53.655	1.00	62.63
ATOM	2394	CG	LYS	B	25	25.908	9.737	52.176	1.00	62.43
ATOM	2395	CD	LYS	B	25	27.378	9.486	51.908	1.00	63.27
ATOM	2396	CE	LYS	B	25	27.772	8.047	52.197	1.00	62.30
ATOM	2397	NZ	LYS	B	25	29.243	7.842	52.072	1.00	60.67
ATOM	2398	C	LYS	B	25	25.859	11.181	55.772	1.00	48.94
ATOM	2399	O	LYS	B	25	25.679	10.387	56.698	1.00	46.18
ATOM	2400	N	ILE	B	26	25.523	12.466	55.828	1.00	51.90
ATOM	2401	CA	ILE	B	26	24.977	13.025	57.066	1.00	54.24
ATOM	2402	CB	ILE	B	26	24.660	14.523	56.951	1.00	63.05
ATOM	2403	CG1	ILE	B	26	23.589	14.879	55.916	1.00	68.15
ATOM	2404	CD1	ILE	B	26	22.545	15.837	56.460	1.00	71.59
ATOM	2405	CG2	ILE	B	26	25.929	15.325	56.685	1.00	65.12
ATOM	2406	C	ILE	B	26	23.733	12.241	57.465	1.00	51.02
ATOM	2407	O	ILE	B	26	23.573	11.830	58.614	1.00	47.65
ATOM	2408	N	ASN	B	27	22.870	12.003	56.483	1.00	51.44
ATOM	2409	CA	ASN	B	27	21.666	11.219	56.721	1.00	61.45
ATOM	2410	CB	ASN	B	27	20.899	10.993	55.415	1.00	75.84
ATOM	2411	CG	ASN	B	27	20.870	12.209	54.511	1.00	85.31
ATOM	2412	OD1	ASN	B	27	21.910	12.672	54.041	1.00	99.97
ATOM	2413	ND2	ASN	B	27	19.672	12.729	54.262	1.00	93.77
ATOM	2414	C	ASN	B	27	21.985	9.885	57.379	1.00	55.35
ATOM	2415	O	ASN	B	27	21.135	9.336	58.089	1.00	88.25
ATOM	2416	N	GLN	B	28	23.176	9.311	57.195	1.00	48.45
ATOM	2417	CA	GLN	B	28	23.415	8.047	57.894	1.00	52.09
ATOM	2418	CB	GLN	B	28	24.024	6.974	56.990	1.00	57.63
ATOM	2419	CG	GLN	B	28	24.654	7.430	55.694	1.00	63.93
ATOM	2420	CD	GLN	B	28	24.174	6.638	54.490	1.00	71.84
ATOM	2421	OE1	GLN	B	28	24.797	5.657	54.074	1.00	79.09
ATOM	2422	NE2	GLN	B	28	23.051	7.067	53.920	1.00	63.99
ATOM	2423	C	GLN	B	28	24.321	8.227	59.103	1.00	48.62
ATOM	2424	O	GLN	B	28	24.763	7.214	59.654	1.00	48.29
ATOM	2425	N	PHE	B	29	24.617	9.452	59.529	1.00	55.12
ATOM	2426	CA	PHE	B	29	25.569	9.586	60.626	1.00	55.39
ATOM	2427	CB	PHE	B	29	25.852	11.055	61.000	1.00	55.09
ATOM	2428	CG	PHE	B	29	27.126	11.084	61.852	1.00	51.70
ATOM	2429	CD1	PHE	B	29	28.363	11.038	61.233	1.00	54.80
ATOM	2430	CE1	PHE	B	29	29.521	11.046	61.984	1.00	57.30
ATOM	2431	CZ	PHE	B	29	29.458	11.100	63.365	1.00	54.61
ATOM	2432	CE2	PHE	B	29	28.227	11.150	63.988	1.00	44.82
ATOM	2433	CD2	PHE	B	29	27.071	11.145	63.230	1.00	41.09
ATOM	2434	C	PHE	B	29	25.123	8.850	61.890	1.00	57.59
ATOM	2435	O	PHE	B	29	25.964	8.281	62.594	1.00	47.92
ATOM	2436	N	GLU	B	30	23.828	8.867	62.167	1.00	63.38
ATOM	2437	CA	GLU	B	30	23.280	8.207	63.344	1.00	62.77
ATOM	2438	CB	GLU	B	30	21.748	8.203	63.264	1.00	73.02
ATOM	2439	CG	GLU	B	30	21.122	9.397	63.971	1.00	77.36
ATOM	2440	CD	GLU	B	30	21.462	9.438	65.448	1.00	78.77
ATOM	2441	OE1	GLU	B	30	20.929	10.329	66.141	1.00	79.79
ATOM	2442	OE2	GLU	B	30	22.251	8.592	65.918	1.00	84.00
ATOM	2443	C	GLU	B	30	23.793	6.783	63.519	1.00	54.87

**FIGURE 149**

ATOM	2444	O	GLU	B	30	24.369	6.475	64.563	1.00	35.09
ATOM	2445	N	GLY	B	31	23.595	5.938	62.517	1.00	59.10
ATOM	2446	CA	GLY	B	31	23.994	4.545	62.525	1.00	56.95
ATOM	2447	C	GLY	B	31	25.493	4.331	62.443	1.00	59.39
ATOM	2448	O	GLY	B	31	26.019	3.379	63.037	1.00	42.38
ATOM	2449	N	HIS	B	32	26.167	5.215	61.710	1.00	59.10
ATOM	2450	CA	HIS	B	32	27.629	5.216	61.649	1.00	51.48
ATOM	2451	CB	HIS	B	32	28.127	6.437	60.888	1.00	51.68
ATOM	2452	CG	HIS	B	32	29.593	6.534	60.618	1.00	64.14
ATOM	2453	ND1	HIS	B	32	30.445	7.321	61.368	1.00	66.96
ATOM	2454	CE1	HIS	B	32	31.680	7.223	60.917	1.00	64.66
ATOM	2455	NE2	HIS	B	32	31.669	6.399	59.884	1.00	69.62
ATOM	2456	CD2	HIS	B	32	30.382	5.959	59.681	1.00	69.44
ATOM	2457	C	HIS	B	32	28.174	5.164	63.071	1.00	48.27
ATOM	2458	O	HIS	B	32	28.812	4.198	63.493	1.00	43.02
ATOM	2459	N	PHE	B	33	27.893	6.215	63.836	1.00	52.78
ATOM	2460	CA	PHE	B	33	28.398	6.300	65.205	1.00	56.25
ATOM	2461	CB	PHE	B	33	27.898	7.596	65.853	1.00	58.42
ATOM	2462	CG	PHE	B	33	28.693	8.008	67.083	1.00	52.11
ATOM	2463	CD1	PHE	B	33	30.015	7.634	67.229	1.00	40.98
ATOM	2464	CE1	PHE	B	33	30.727	8.001	68.354	1.00	46.43
ATOM	2465	CZ	PHE	B	33	30.127	8.753	69.348	1.00	46.14
ATOM	2466	CE2	PHE	B	33	28.806	9.135	69.208	1.00	46.50
ATOM	2467	CD2	PHE	B	33	28.101	8.767	68.079	1.00	53.38
ATOM	2468	C	PHE	B	33	28.022	5.075	66.032	1.00	55.13
ATOM	2469	O	PHE	B	33	28.890	4.473	66.675	1.00	37.79
ATOM	2470	N	MET	B	34	26.755	4.681	66.032	1.00	65.84
ATOM	2471	CA	MET	B	34	26.316	3.484	66.751	1.00	75.38
ATOM	2472	CB	MET	B	34	24.841	3.195	66.464	1.00	80.09
ATOM	2473	CG	MET	B	34	23.886	3.798	67.480	1.00	84.30
ATOM	2474	SD	MET	B	34	22.339	4.405	66.779	1.00	87.53
ATOM	2475	CE	MET	B	34	21.767	2.952	65.905	1.00	52.16
ATOM	2476	C	MET	B	34	27.188	2.284	66.383	1.00	75.48
ATOM	2477	O	MET	B	34	27.588	1.495	67.238	1.00	66.38
ATOM	2478	N	LYS	B	35	27.503	2.192	65.096	1.00	75.62
ATOM	2479	CA	LYS	B	35	28.410	1.192	64.561	1.00	70.36
ATOM	2480	CB	LYS	B	35	28.646	1.437	63.066	1.00	73.89
ATOM	2481	CG	LYS	B	35	27.460	1.150	62.169	1.00	77.64
ATOM	2482	CD	LYS	B	35	27.860	0.247	61.008	1.00	79.39
ATOM	2483	CE	LYS	B	35	27.676	-1.218	61.371	1.00	81.96
ATOM	2484	NZ	LYS	B	35	28.542	-1.629	62.510	1.00	89.41
ATOM	2485	C	LYS	B	35	29.760	1.199	65.265	1.00	64.44
ATOM	2486	O	LYS	B	35	30.185	0.235	65.901	1.00	37.91
ATOM	2487	N	LEU	B	36	30.485	2.316	65.147	1.00	63.16
ATOM	2488	CA	LEU	B	36	31.841	2.334	65.693	1.00	63.09
ATOM	2489	CB	LEU	B	36	32.573	3.624	65.324	1.00	65.24
ATOM	2490	CG	LEU	B	36	32.842	3.848	63.836	1.00	68.40
ATOM	2491	CD1	LEU	B	36	31.931	4.933	63.279	1.00	66.79
ATOM	2492	CD2	LEU	B	36	34.303	4.199	63.599	1.00	81.44
ATOM	2493	C	LEU	B	36	31.826	2.156	67.209	1.00	56.96
ATOM	2494	O	LEU	B	36	32.833	1.728	67.774	1.00	56.27
ATOM	2495	N	GLN	B	37	30.691	2.487	67.805	1.00	53.43

FIGURE 150

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ATOM	2496	CA	GLN	B	37	30.459	2.414	69.236	1.00	69.43
ATOM	2497	CB	GLN	B	37	29.331	3.386	69.619	1.00	68.76
ATOM	2498	CG	GLN	B	37	29.831	4.826	69.657	1.00	75.93
ATOM	2499	CD	GLN	B	37	28.722	5.824	69.917	1.00	77.13
ATOM	2500	OE1	GLN	B	37	27.936	6.137	69.020	1.00	87.89
ATOM	2501	NE2	GLN	B	37	28.671	6.319	71.147	1.00	60.96
ATOM	2502	C	GLN	B	37	30.117	1.006	69.706	1.00	79.22
ATOM	2503	O	GLN	B	37	30.388	0.635	70.850	1.00	73.11
ATOM	2504	N	ALA	B	38	29.518	0.228	68.808	1.00	83.91
ATOM	2505	CA	ALA	B	38	29.154	-1.148	69.119	1.00	85.90
ATOM	2506	CB	ALA	B	38	28.533	-1.809	67.896	1.00	73.44
ATOM	2507	C	ALA	B	38	30.354	-1.952	69.612	1.00	87.80
ATOM	2508	O	ALA	B	38	31.504	-1.707	69.247	1.00	77.48
ATOM	2509	N	ASP	B	39	30.073	-2.936	70.462	1.00	88.62
ATOM	2510	CA	ASP	B	39	31.113	-3.821	70.969	1.00	85.89
ATOM	2511	CB	ASP	B	39	31.626	-4.719	69.837	1.00	87.42
ATOM	2512	CG	ASP	B	39	30.689	-5.885	69.586	1.00	90.49
ATOM	2513	OD1	ASP	B	39	30.455	-6.223	68.408	1.00	97.09
ATOM	2514	OD2	ASP	B	39	30.188	-6.455	70.579	1.00	93.16
ATOM	2515	C	ASP	B	39	32.267	-3.044	71.587	1.00	82.50
ATOM	2516	O	ASP	B	39	33.429	-3.298	71.271	1.00	76.36
ATOM	2517	N	SER	B	40	31.940	-2.102	72.465	1.00	82.73
ATOM	2518	CA	SER	B	40	32.957	-1.326	73.165	1.00	79.40
ATOM	2519	CB	SER	B	40	33.839	-2.246	74.009	1.00	75.80
ATOM	2520	OG	SER	B	40	34.651	-3.081	73.205	1.00	54.94
ATOM	2521	C	SER	B	40	33.807	-0.518	72.180	1.00	76.46
ATOM	2522	O	SER	B	40	35.024	-0.714	72.131	1.00	64.01
ATOM	2523	N	ASN	B	41	33.121	0.352	71.454	1.00	73.19
ATOM	2524	CA	ASN	B	41	33.647	1.191	70.394	1.00	71.55
ATOM	2525	CB	ASN	B	41	34.253	2.492	70.912	1.00	67.00
ATOM	2526	CG	ASN	B	41	33.360	3.337	71.784	1.00	65.98
ATOM	2527	OD1	ASN	B	41	32.134	3.225	71.788	1.00	77.13
ATOM	2528	ND2	ASN	B	41	33.976	4.224	72.563	1.00	62.14
ATOM	2529	C	ASN	B	41	34.710	0.429	69.603	1.00	74.40
ATOM	2530	O	ASN	B	41	35.806	0.941	69.376	1.00	81.24
ATOM	2531	N	TYR	B	42	34.393	-0.804	69.212	1.00	74.86
ATOM	2532	CA	TYR	B	42	35.405	-1.610	68.534	1.00	74.76
ATOM	2533	CB	TYR	B	42	34.880	-3.002	68.168	1.00	75.15
ATOM	2534	CG	TYR	B	42	35.907	-3.795	67.386	1.00	75.66
ATOM	2535	CD1	TYR	B	42	37.017	-4.332	68.023	1.00	78.98
ATOM	2536	CE1	TYR	B	42	37.961	-5.054	67.316	1.00	81.79
ATOM	2537	CZ	TYR	B	42	37.804	-5.243	65.959	1.00	81.37
ATOM	2538	OH	TYR	B	42	38.747	-5.962	65.258	1.00	80.99
ATOM	2539	CE2	TYR	B	42	36.713	-4.717	65.304	1.00	76.53
ATOM	2540	CD2	TYR	B	42	35.775	-3.996	66.019	1.00	75.88
ATOM	2541	C	TYR	B	42	35.914	-0.906	67.277	1.00	72.94
ATOM	2542	O	TYR	B	42	37.119	-0.676	67.155	1.00	61.94
ATOM	2543	N	LEU	B	43	35.004	-0.570	66.366	1.00	68.88
ATOM	2544	CA	LEU	B	43	35.396	0.092	65.128	1.00	70.56
ATOM	2545	CB	LEU	B	43	34.188	0.493	64.286	1.00	72.58
ATOM	2546	CG	LEU	B	43	33.017	-0.487	64.224	1.00	76.87
ATOM	2547	CD1	LEU	B	43	31.993	-0.053	63.184	1.00	62.51

**FIGURE 151**

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ATOM	2548	CD2	LEU	B	43	33.520	-1.895	63.937	1.00	77.97
ATOM	2549	C	LEU	B	43	36.248	1.336	65.417	1.00	67.14
ATOM	2550	O	LEU	B	43	37.449	1.316	65.140	1.00	50.41
ATOM	2551	N	LEU	B	44	35.580	2.345	65.951	1.00	66.03
ATOM	2552	CA	LEU	B	44	36.109	3.651	66.304	1.00	61.62
ATOM	2553	CB	LEU	B	44	35.238	4.313	67.375	1.00	62.58
ATOM	2554	CG	LEU	B	44	35.741	5.640	67.946	1.00	58.19
ATOM	2555	CD1	LEU	B	44	34.587	6.622	68.088	1.00	55.67
ATOM	2556	CD2	LEU	B	44	36.446	5.433	69.276	1.00	48.14
ATOM	2557	C	LEU	B	44	37.551	3.568	66.793	1.00	59.86
ATOM	2558	O	LEU	B	44	38.446	4.143	66.175	1.00	48.99
ATOM	2559	N	SER	B	45	37.750	2.840	67.887	1.00	64.48
ATOM	2560	CA	SER	B	45	39.072	2.646	68.456	1.00	71.61
ATOM	2561	CB	SER	B	45	39.047	1.584	69.560	1.00	73.68
ATOM	2562	OG	SER	B	45	40.284	0.883	69.574	1.00	76.78
ATOM	2563	C	SER	B	45	40.089	2.224	67.396	1.00	71.36
ATOM	2564	O	SER	B	45	41.209	2.728	67.377	1.00	52.39
ATOM	2565	N	LYS	B	46	39.662	1.295	66.549	1.00	78.57
ATOM	2566	CA	LYS	B	46	40.501	0.742	65.494	1.00	84.31
ATOM	2567	CB	LYS	B	46	39.848	-0.499	64.885	1.00	89.10
ATOM	2568	CG	LYS	B	46	40.772	-1.693	64.707	1.00	85.70
ATOM	2569	CD	LYS	B	46	40.699	-2.236	63.288	1.00	83.59
ATOM	2570	CE	LYS	B	46	41.199	-3.666	63.201	1.00	84.74
ATOM	2571	NZ	LYS	B	46	40.192	-4.641	63.706	1.00	92.84
ATOM	2572	C	LYS	B	46	40.773	1.795	64.420	1.00	81.13
ATOM	2573	O	LYS	B	46	41.920	1.966	64.005	1.00	84.85
ATOM	2574	N	GLU	B	47	39.718	2.485	64.012	1.00	74.35
ATOM	2575	CA	GLU	B	47	39.755	3.570	63.041	1.00	70.19
ATOM	2576	CB	GLU	B	47	38.323	3.963	62.661	1.00	66.52
ATOM	2577	CG	GLU	B	47	38.025	5.446	62.668	1.00	62.55
ATOM	2578	CD	GLU	B	47	36.885	5.861	61.763	1.00	59.88
ATOM	2579	OE1	GLU	B	47	36.350	5.017	61.015	1.00	48.61
ATOM	2580	OE2	GLU	B	47	36.514	7.057	61.794	1.00	47.49
ATOM	2581	C	GLU	B	47	40.536	4.777	63.555	1.00	65.98
ATOM	2582	O	GLU	B	47	40.806	5.729	62.818	1.00	61.94
ATOM	2583	N	TYR	B	48	40.929	4.759	64.822	1.00	59.02
ATOM	2584	CA	TYR	B	48	41.740	5.813	65.412	1.00	54.32
ATOM	2585	CB	TYR	B	48	41.164	6.221	66.766	1.00	47.04
ATOM	2586	CG	TYR	B	48	41.966	7.305	67.448	1.00	43.40
ATOM	2587	CD1	TYR	B	48	41.837	8.629	67.048	1.00	39.64
ATOM	2588	CE1	TYR	B	48	42.565	9.622	67.667	1.00	35.48
ATOM	2589	CZ	TYR	B	48	43.426	9.313	68.688	1.00	33.02
ATOM	2590	OH	TYR	B	48	44.149	10.314	69.302	1.00	49.28
ATOM	2591	CE2	TYR	B	48	43.570	8.007	69.103	1.00	43.77
ATOM	2592	CD2	TYR	B	48	42.842	7.011	68.481	1.00	38.80
ATOM	2593	C	TYR	B	48	43.182	5.374	65.585	1.00	59.37
ATOM	2594	O	TYR	B	48	44.124	6.169	65.563	1.00	53.93
ATOM	2595	N	GLU	B	49	43.427	4.067	65.759	1.00	56.83
ATOM	2596	CA	GLU	B	49	44.857	3.719	65.788	1.00	52.72
ATOM	2597	CB	GLU	B	49	45.118	2.439	66.568	1.00	61.99
ATOM	2598	CG	GLU	B	49	46.098	2.586	67.723	1.00	66.59
ATOM	2599	CD	GLU	B	49	45.724	3.661	68.723	1.00	68.99

**FIGURE 152**

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ATOM	2600	OE1	GLU	B	49	44.737	3.486	69.468	1.00	71.09
ATOM	2601	OE2	GLU	B	49	46.424	4.699	68.778	1.00	64.67
ATOM	2602	C	GLU	B	49	45.353	3.635	64.349	1.00	43.12
ATOM	2603	O	GLU	B	49	46.539	3.492	64.069	1.00	46.58
ATOM	2604	N	GLU	B	50	44.424	3.733	63.404	1.00	35.51
ATOM	2605	CA	GLU	B	50	44.790	3.731	61.992	1.00	48.92
ATOM	2606	CB	GLU	B	50	43.546	3.509	61.132	1.00	55.98
ATOM	2607	CG	GLU	B	50	43.820	2.894	59.769	1.00	62.45
ATOM	2608	CD	GLU	B	50	42.672	3.111	58.802	1.00	72.64
ATOM	2609	OE1	GLU	B	50	42.932	3.465	57.632	1.00	97.10
ATOM	2610	OE2	GLU	B	50	41.505	2.932	59.214	1.00	90.89
ATOM	2611	C	GLU	B	50	45.484	5.036	61.609	1.00	51.81
ATOM	2612	O	GLU	B	50	46.447	5.031	60.840	1.00	60.14
ATOM	2613	N	LEU	B	51	44.993	6.142	62.157	1.00	45.17
ATOM	2614	CA	LEU	B	51	45.544	7.474	61.921	1.00	36.37
ATOM	2615	CB	LEU	B	51	44.599	8.527	62.511	1.00	31.85
ATOM	2616	CG	LEU	B	51	43.381	8.867	61.656	1.00	28.95
ATOM	2617	CD1	LEU	B	51	42.269	9.488	62.490	1.00	29.93
ATOM	2618	CD2	LEU	B	51	43.770	9.789	60.507	1.00	38.39
ATOM	2619	C	LEU	B	51	46.931	7.623	62.529	1.00	40.25
ATOM	2620	O	LEU	B	51	47.666	8.567	62.254	1.00	43.39
ATOM	2621	N	LYS	B	52	47.288	6.661	63.367	1.00	39.11
ATOM	2622	CA	LYS	B	52	48.486	6.628	64.172	1.00	41.30
ATOM	2623	CB	LYS	B	52	48.607	5.228	64.795	1.00	38.29
ATOM	2624	CG	LYS	B	52	49.077	5.211	66.234	1.00	41.48
ATOM	2625	CD	LYS	B	52	49.745	3.871	66.543	1.00	42.51
ATOM	2626	CE	LYS	B	52	49.996	3.752	68.036	1.00	44.45
ATOM	2627	NZ	LYS	B	52	48.720	3.710	68.803	1.00	54.34
ATOM	2628	C	LYS	B	52	49.776	6.939	63.433	1.00	43.04
ATOM	2629	O	LYS	B	52	50.637	7.651	63.963	1.00	51.42
ATOM	2630	N	ASP	B	53	49.981	6.421	62.225	1.00	35.92
ATOM	2631	CA	ASP	B	53	51.272	6.646	61.580	1.00	36.34
ATOM	2632	CB	ASP	B	53	51.714	5.388	60.823	1.00	46.86
ATOM	2633	CG	ASP	B	53	51.520	4.136	61.665	1.00	60.28
ATOM	2634	OD1	ASP	B	53	50.750	3.258	61.221	1.00	74.44
ATOM	2635	OD2	ASP	B	53	52.132	4.051	62.753	1.00	57.58
ATOM	2636	C	ASP	B	53	51.267	7.819	60.606	1.00	25.54
ATOM	2637	O	ASP	B	53	52.315	8.092	60.019	1.00	31.31
ATOM	2638	N	VAL	B	54	50.126	8.459	60.444	1.00	25.37
ATOM	2639	CA	VAL	B	54	50.004	9.549	59.477	1.00	28.87
ATOM	2640	CB	VAL	B	54	48.603	10.168	59.522	1.00	32.29
ATOM	2641	CG1	VAL	B	54	48.397	11.175	58.399	1.00	27.43
ATOM	2642	CG2	VAL	B	54	47.541	9.073	59.433	1.00	35.45
ATOM	2643	C	VAL	B	54	51.089	10.587	59.747	1.00	35.40
ATOM	2644	O	VAL	B	54	51.266	11.007	60.887	1.00	28.36
ATOM	2645	N	GLY	B	55	51.818	10.950	58.704	1.00	30.35
ATOM	2646	CA	GLY	B	55	52.888	11.904	58.678	1.00	26.77
ATOM	2647	C	GLY	B	55	54.129	11.566	59.459	1.00	31.10
ATOM	2648	O	GLY	B	55	54.988	12.440	59.618	1.00	28.63
ATOM	2649	N	ARG	B	56	54.281	10.344	59.959	1.00	31.74
ATOM	2650	CA	ARG	B	56	55.404	9.997	60.827	1.00	37.30
ATOM	2651	CB	ARG	B	56	55.077	8.697	61.573	1.00	46.87

**FIGURE 153**

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ATOM	2652	CG	ARG	B	56	55.107	7.449	60.705	1.00	56.15
ATOM	2653	CD	ARG	B	56	55.129	6.169	61.530	1.00	51.35
ATOM	2654	NE	ARG	B	56	56.387	5.999	62.253	1.00	46.32
ATOM	2655	CZ	ARG	B	56	56.583	5.142	63.245	1.00	43.24
ATOM	2656	NH1	ARG	B	56	55.595	4.357	63.646	1.00	38.49
ATOM	2657	NH2	ARG	B	56	57.771	5.074	63.831	1.00	37.94
ATOM	2658	C	ARG	B	56	56.729	9.869	60.089	1.00	44.81
ATOM	2659	O	ARG	B	56	57.782	9.586	60.675	1.00	33.22
ATOM	2660	N	ASN	B	57	56.702	10.084	58.779	1.00	40.44
ATOM	2661	CA	ASN	B	57	57.876	10.023	57.931	1.00	33.30
ATOM	2662	CB	ASN	B	57	57.436	9.773	56.482	1.00	44.90
ATOM	2663	CG	ASN	B	57	56.483	10.848	55.987	1.00	53.38
ATOM	2664	OD1	ASN	B	57	56.798	11.576	55.040	1.00	73.52
ATOM	2665	ND2	ASN	B	57	55.311	10.971	56.602	1.00	38.90
ATOM	2666	C	ASN	B	57	58.691	11.308	57.972	1.00	31.80
ATOM	2667	O	ASN	B	57	59.810	11.344	57.465	1.00	31.72
ATOM	2668	N	GLN	B	58	58.129	12.357	58.569	1.00	28.77
ATOM	2669	CA	GLN	B	58	58.736	13.681	58.549	1.00	24.41
ATOM	2670	CB	GLN	B	58	57.611	14.729	58.466	1.00	27.17
ATOM	2671	CG	GLN	B	58	56.688	14.411	57.292	1.00	28.52
ATOM	2672	CD	GLN	B	58	55.494	15.335	57.233	1.00	31.70
ATOM	2673	OE1	GLN	B	58	55.513	16.340	56.520	1.00	30.23
ATOM	2674	NE2	GLN	B	58	54.460	14.991	57.992	1.00	28.20
ATOM	2675	C	GLN	B	58	59.621	13.965	59.743	1.00	26.40
ATOM	2676	O	GLN	B	58	59.307	13.588	60.865	1.00	32.07
ATOM	2677	N	SER	B	59	60.750	14.633	59.494	1.00	21.54
ATOM	2678	CA	SER	B	59	61.713	14.878	60.552	1.00	25.17
ATOM	2679	CB	SER	B	59	63.136	14.784	60.000	1.00	31.63
ATOM	2680	OG	SER	B	59	63.435	15.925	59.212	1.00	43.09
ATOM	2681	C	SER	B	59	61.470	16.250	61.193	1.00	29.30
ATOM	2682	O	SER	B	59	60.674	17.010	60.635	1.00	24.20
ATOM	2683	N	CYS	B	60	62.166	16.479	62.290	1.00	25.59
ATOM	2684	CA	CYS	B	60	62.116	17.647	63.149	1.00	30.08
ATOM	2685	CB	CYS	B	60	61.390	17.257	64.451	1.00	26.43
ATOM	2686	SG	CYS	B	60	59.647	16.884	64.130	1.00	33.04
ATOM	2687	C	CYS	B	60	63.489	18.201	63.472	1.00	33.64
ATOM	2688	O	CYS	B	60	63.790	18.632	64.592	1.00	25.31
ATOM	2689	N	ASP	B	61	64.361	18.193	62.463	1.00	23.90
ATOM	2690	CA	ASP	B	61	65.744	18.559	62.696	1.00	19.83
ATOM	2691	CB	ASP	B	61	66.538	18.374	61.392	1.00	28.21
ATOM	2692	CG	ASP	B	61	66.602	16.912	60.974	1.00	37.45
ATOM	2693	OD1	ASP	B	61	66.668	16.033	61.857	1.00	46.92
ATOM	2694	OD2	ASP	B	61	66.585	16.633	59.756	1.00	39.28
ATOM	2695	C	ASP	B	61	65.931	19.978	63.202	1.00	18.89
ATOM	2696	O	ASP	B	61	66.742	20.234	64.100	1.00	26.23
ATOM	2697	N	ILE	B	62	65.208	20.944	62.642	1.00	17.76
ATOM	2698	CA	ILE	B	62	65.463	22.312	63.098	1.00	16.77
ATOM	2699	CB	ILE	B	62	64.737	23.351	62.222	1.00	26.79
ATOM	2700	CG1	ILE	B	62	65.028	23.219	60.729	1.00	30.78
ATOM	2701	CD1	ILE	B	62	66.350	22.561	60.400	1.00	49.88
ATOM	2702	CG2	ILE	B	62	65.029	24.761	62.731	1.00	20.53
ATOM	2703	C	ILE	B	62	65.015	22.503	64.540	1.00	21.81

**FIGURE 154**

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ATOM	2704	O	ILE	B	62	65.635	23.218	65.328	1.00	26.45
ATOM	2705	N	ALA	B	63	63.903	21.860	64.890	1.00	22.22
ATOM	2706	CA	ALA	B	63	63.421	22.042	66.267	1.00	23.49
ATOM	2707	CB	ALA	B	63	62.039	21.427	66.404	1.00	13.73
ATOM	2708	C	ALA	B	63	64.438	21.456	67.235	1.00	32.72
ATOM	2709	O	ALA	B	63	64.621	21.898	68.366	1.00	29.49
ATOM	2710	N	LEU	B	64	65.142	20.427	66.770	1.00	26.75
ATOM	2711	CA	LEU	B	64	66.097	19.704	67.590	1.00	24.87
ATOM	2712	CB	LEU	B	64	66.248	18.272	67.035	1.00	30.01
ATOM	2713	CG	LEU	B	64	65.032	17.393	67.356	1.00	30.13
ATOM	2714	CD1	LEU	B	64	65.068	16.082	66.591	1.00	23.61
ATOM	2715	CD2	LEU	B	64	64.982	17.171	68.862	1.00	35.44
ATOM	2716	C	LEU	B	64	67.454	20.371	67.657	1.00	28.99
ATOM	2717	O	LEU	B	64	68.343	19.889	68.367	1.00	41.07
ATOM	2718	N	LEU	B	65	67.636	21.470	66.927	1.00	26.97
ATOM	2719	CA	LEU	B	65	68.925	22.152	66.964	1.00	25.83
ATOM	2720	CB	LEU	B	65	68.955	23.340	66.001	1.00	29.04
ATOM	2721	CG	LEU	B	65	69.017	23.002	64.513	1.00	33.55
ATOM	2722	CD1	LEU	B	65	68.843	24.264	63.679	1.00	36.14
ATOM	2723	CD2	LEU	B	65	70.327	22.301	64.180	1.00	39.25
ATOM	2724	C	LEU	B	65	69.234	22.654	68.373	1.00	30.40
ATOM	2725	O	LEU	B	65	68.329	23.174	69.021	1.00	31.08
ATOM	2726	N	PRO	B	66	70.470	22.487	68.809	1.00	33.09
ATOM	2727	CA	PRO	B	66	70.935	22.972	70.112	1.00	41.49
ATOM	2728	CB	PRO	B	66	72.456	23.052	69.889	1.00	43.28
ATOM	2729	CG	PRO	B	66	72.722	21.860	69.020	1.00	38.43
ATOM	2730	CD	PRO	B	66	71.543	21.766	68.091	1.00	35.99
ATOM	2731	C	PRO	B	66	70.390	24.336	70.511	1.00	44.08
ATOM	2732	O	PRO	B	66	69.735	24.440	71.557	1.00	50.98
ATOM	2733	N	GLU	B	67	70.636	25.375	69.722	1.00	35.08
ATOM	2734	CA	GLU	B	67	70.246	26.724	70.105	1.00	39.35
ATOM	2735	CB	GLU	B	67	70.775	27.730	69.068	1.00	38.98
ATOM	2736	CG	GLU	B	67	71.059	27.062	67.732	1.00	52.87
ATOM	2737	CD	GLU	B	67	70.712	27.954	66.555	1.00	59.99
ATOM	2738	OE1	GLU	B	67	71.040	29.158	66.611	1.00	78.27
ATOM	2739	OE2	GLU	B	67	70.119	27.433	65.586	1.00	46.11
ATOM	2740	C	GLU	B	67	68.744	26.916	70.246	1.00	38.16
ATOM	2741	O	GLU	B	67	68.327	27.971	70.736	1.00	36.75
ATOM	2742	N	ASN	B	68	67.935	25.950	69.821	1.00	29.98
ATOM	2743	CA	ASN	B	68	66.493	26.069	69.927	1.00	24.34
ATOM	2744	CB	ASN	B	68	65.775	25.589	68.662	1.00	22.49
ATOM	2745	CG	ASN	B	68	66.037	26.469	67.459	1.00	23.36
ATOM	2746	OD1	ASN	B	68	66.205	27.674	67.613	1.00	24.40
ATOM	2747	ND2	ASN	B	68	66.092	25.871	66.273	1.00	19.47
ATOM	2748	C	ASN	B	68	65.957	25.255	71.100	1.00	28.35
ATOM	2749	O	ASN	B	68	64.733	25.161	71.233	1.00	31.84
ATOM	2750	N	ARG	B	69	66.821	24.667	71.924	1.00	28.07
ATOM	2751	CA	ARG	B	69	66.284	23.759	72.950	1.00	39.17
ATOM	2752	CB	ARG	B	69	67.429	23.142	73.757	1.00	53.87
ATOM	2753	CG	ARG	B	69	66.997	22.065	74.739	1.00	67.65
ATOM	2754	CD	ARG	B	69	68.095	21.761	75.748	1.00	84.00
ATOM	2755	NE	ARG	B	69	67.751	22.204	77.096	1.00	97.13

**FIGURE 155**

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ATOM	2756	CZ	ARG	B	69	68.057	21.573	78.220	1.00102.06
ATOM	2757	NH1	ARG	B	69	68.733	20.432	78.192	1.00107.87
ATOM	2758	NH2	ARG	B	69	67.686	22.083	79.390	1.00 97.89
ATOM	2759	C	ARG	B	69	65.290	24.445	73.877	1.00 34.20
ATOM	2760	O	ARG	B	69	64.217	23.908	74.184	1.00 35.41
ATOM	2761	N	GLY	B	70	65.616	25.659	74.328	1.00 21.83
ATOM	2762	CA	GLY	B	70	64.720	26.300	75.284	1.00 24.46
ATOM	2763	C	GLY	B	70	63.455	26.843	74.655	1.00 27.71
ATOM	2764	O	GLY	B	70	62.569	27.348	75.354	1.00 27.30
ATOM	2765	N	LYS	B	71	63.327	26.770	73.329	1.00 24.69
ATOM	2766	CA	LYS	B	71	62.166	27.353	72.655	1.00 22.38
ATOM	2767	CB	LYS	B	71	62.587	27.893	71.274	1.00 24.49
ATOM	2768	CG	LYS	B	71	63.764	28.870	71.323	1.00 19.45
ATOM	2769	CD	LYS	B	71	64.184	29.275	69.921	1.00 23.88
ATOM	2770	CE	LYS	B	71	65.345	30.261	69.951	1.00 28.97
ATOM	2771	NZ	LYS	B	71	66.081	30.241	68.653	1.00 31.46
ATOM	2772	C	LYS	B	71	61.010	26.379	72.521	1.00 17.66
ATOM	2773	O	LYS	B	71	59.934	26.726	72.014	1.00 18.84
ATOM	2774	N	ASN	B	72	61.211	25.140	72.984	1.00 15.08
ATOM	2775	CA	ASN	B	72	60.162	24.136	72.990	1.00 14.64
ATOM	2776	CB	ASN	B	72	60.706	22.823	72.400	1.00 18.63
ATOM	2777	CG	ASN	B	72	61.196	23.022	70.977	1.00 21.72
ATOM	2778	OD1	ASN	B	72	60.464	23.572	70.157	1.00 19.84
ATOM	2779	ND2	ASN	B	72	62.409	22.607	70.663	1.00 16.01
ATOM	2780	C	ASN	B	72	59.640	23.891	74.408	1.00 14.08
ATOM	2781	O	ASN	B	72	60.429	23.667	75.324	1.00 19.73
ATOM	2782	N	ARG	B	73	58.334	23.951	74.601	1.00 15.40
ATOM	2783	CA	ARG	B	73	57.720	23.714	75.893	1.00 23.30
ATOM	2784	CB	ARG	B	73	56.221	23.993	75.832	1.00 17.66
ATOM	2785	CG	ARG	B	73	55.551	23.888	77.187	1.00 14.92
ATOM	2786	CD	ARG	B	73	54.140	24.412	77.108	1.00 14.81
ATOM	2787	NE	ARG	B	73	54.131	25.882	77.110	1.00 17.20
ATOM	2788	CZ	ARG	B	73	54.259	26.568	78.241	1.00 22.34
ATOM	2789	NH1	ARG	B	73	54.403	25.967	79.421	1.00 13.10
ATOM	2790	NH2	ARG	B	73	54.229	27.883	78.127	1.00 19.63
ATOM	2791	C	ARG	B	73	57.917	22.253	76.319	1.00 28.40
ATOM	2792	O	ARG	B	73	58.144	21.962	77.484	1.00 19.38
ATOM	2793	N	TYR	B	74	57.810	21.373	75.335	1.00 22.53
ATOM	2794	CA	TYR	B	74	57.930	19.925	75.513	1.00 16.28
ATOM	2795	CB	TYR	B	74	56.580	19.271	75.323	1.00 19.24
ATOM	2796	CG	TYR	B	74	55.438	19.771	76.176	1.00 19.80
ATOM	2797	CD1	TYR	B	74	55.345	19.402	77.515	1.00 21.42
ATOM	2798	CE1	TYR	B	74	54.301	19.844	78.304	1.00 21.50
ATOM	2799	CZ	TYR	B	74	53.324	20.663	77.785	1.00 18.77
ATOM	2800	OH	TYR	B	74	52.288	21.098	78.587	1.00 23.74
ATOM	2801	CE2	TYR	B	74	53.379	21.045	76.460	1.00 12.51
ATOM	2802	CD2	TYR	B	74	54.439	20.586	75.681	1.00 13.12
ATOM	2803	C	TYR	B	74	58.958	19.399	74.521	1.00 22.96
ATOM	2804	O	TYR	B	74	58.901	19.662	73.319	1.00 22.52
ATOM	2805	N	ASN	B	75	59.951	18.640	74.966	1.00 26.45
ATOM	2806	CA	ASN	B	75	61.042	18.268	74.058	1.00 23.82
ATOM	2807	CB	ASN	B	75	62.205	17.736	74.904	1.00 32.86

**FIGURE 156**



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ATOM	2808	CG	ASN	B	75	62.817	18.860	75.726	1.00	45.64
ATOM	2809	OD1	ASN	B	75	63.098	18.687	76.911	1.00	76.89
ATOM	2810	ND2	ASN	B	75	63.024	20.023	75.113	1.00	56.37
ATOM	2811	C	ASN	B	75	60.615	17.280	72.990	1.00	17.41
ATOM	2812	O	ASN	B	75	61.316	17.091	71.993	1.00	28.78
ATOM	2813	N	ASN	B	76	59.458	16.656	73.144	1.00	23.38
ATOM	2814	CA	ASN	B	76	58.985	15.644	72.207	1.00	29.72
ATOM	2815	CB	ASN	B	76	58.807	14.310	72.941	1.00	30.87
ATOM	2816	CG	ASN	B	76	57.687	14.316	73.956	1.00	32.40
ATOM	2817	OD1	ASN	B	76	57.263	15.350	74.472	1.00	30.85
ATOM	2818	ND2	ASN	B	76	57.182	13.123	74.264	1.00	26.52
ATOM	2819	C	ASN	B	76	57.695	16.072	71.529	1.00	27.58
ATOM	2820	O	ASN	B	76	56.906	15.286	71.002	1.00	20.64
ATOM	2821	N	ILE	B	77	57.457	17.394	71.539	1.00	21.12
ATOM	2822	CA	ILE	B	77	56.355	17.899	70.728	1.00	21.78
ATOM	2823	CB	ILE	B	77	55.141	18.381	71.519	1.00	18.13
ATOM	2824	CG1	ILE	B	77	54.513	17.334	72.446	1.00	20.08
ATOM	2825	CD1	ILE	B	77	53.650	16.337	71.722	1.00	23.88
ATOM	2826	CG2	ILE	B	77	54.103	18.928	70.552	1.00	17.41
ATOM	2827	C	ILE	B	77	56.919	19.048	69.880	1.00	21.40
ATOM	2828	O	ILE	B	77	56.994	20.175	70.348	1.00	16.51
ATOM	2829	N	LEU	B	78	57.354	18.703	68.682	1.00	17.91
ATOM	2830	CA	LEU	B	78	58.074	19.610	67.792	1.00	14.62
ATOM	2831	CB	LEU	B	78	59.558	19.235	67.683	1.00	19.22
ATOM	2832	CG	LEU	B	78	60.190	18.709	68.980	1.00	24.19
ATOM	2833	CD1	LEU	B	78	61.387	17.832	68.669	1.00	25.60
ATOM	2834	CD2	LEU	B	78	60.571	19.861	69.903	1.00	24.35
ATOM	2835	C	LEU	B	78	57.435	19.608	66.409	1.00	18.54
ATOM	2836	O	LEU	B	78	56.815	18.637	65.968	1.00	20.82
ATOM	2837	N	PRO	B	79	57.571	20.731	65.709	1.00	20.55
ATOM	2838	CA	PRO	B	79	56.989	20.844	64.367	1.00	19.22
ATOM	2839	CB	PRO	B	79	57.039	22.345	64.119	1.00	13.66
ATOM	2840	CG	PRO	B	79	58.250	22.790	64.870	1.00	15.94
ATOM	2841	CD	PRO	B	79	58.277	21.944	66.121	1.00	16.86
ATOM	2842	C	PRO	B	79	57.883	20.131	63.351	1.00	11.53
ATOM	2843	O	PRO	B	79	59.095	20.108	63.519	1.00	19.21
ATOM	2844	N	TYR	B	80	57.241	19.570	62.352	1.00	16.10
ATOM	2845	CA	TYR	B	80	57.888	18.998	61.189	1.00	18.42
ATOM	2846	CB	TYR	B	80	56.838	18.332	60.309	1.00	19.59
ATOM	2847	CG	TYR	B	80	56.182	17.120	60.923	1.00	16.10
ATOM	2848	CD1	TYR	B	80	56.947	16.162	61.577	1.00	18.02
ATOM	2849	CE1	TYR	B	80	56.303	15.060	62.124	1.00	17.97
ATOM	2850	CZ	TYR	B	80	54.947	14.908	62.021	1.00	19.16
ATOM	2851	OH	TYR	B	80	54.319	13.807	62.575	1.00	29.70
ATOM	2852	CE2	TYR	B	80	54.174	15.848	61.375	1.00	23.11
ATOM	2853	CD2	TYR	B	80	54.816	16.945	60.831	1.00	16.60
ATOM	2854	C	TYR	B	80	58.596	20.101	60.399	1.00	23.17
ATOM	2855	O	TYR	B	80	58.013	21.187	60.227	1.00	20.07
ATOM	2856	N	ASP	B	81	59.813	19.801	59.961	1.00	18.92
ATOM	2857	CA	ASP	B	81	60.613	20.748	59.186	1.00	25.46
ATOM	2858	CB	ASP	B	81	61.883	20.083	58.649	1.00	35.12
ATOM	2859	CG	ASP	B	81	62.912	19.827	59.726	1.00	34.96

**FIGURE 157**

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ATOM	2860	OD1	ASP	B	81	62.916	20.589	60.714	1.00	26.58
ATOM	2861	OD2	ASP	B	81	63.711	18.878	59.602	1.00	34.17
ATOM	2862	C	ASP	B	81	59.815	21.292	58.006	1.00	24.68
ATOM	2863	O	ASP	B	81	59.877	22.476	57.667	1.00	30.63
ATOM	2864	N	ALA	B	82	59.076	20.393	57.377	1.00	21.31
ATOM	2865	CA	ALA	B	82	58.381	20.689	56.123	1.00	26.95
ATOM	2866	CB	ALA	B	82	57.912	19.386	55.477	1.00	20.31
ATOM	2867	C	ALA	B	82	57.202	21.637	56.283	1.00	33.87
ATOM	2868	O	ALA	B	82	56.749	22.267	55.323	1.00	20.97
ATOM	2869	N	THR	B	83	56.636	21.770	57.486	1.00	28.89
ATOM	2870	CA	THR	B	83	55.445	22.602	57.616	1.00	17.68
ATOM	2871	CB	THR	B	83	54.208	21.738	57.906	1.00	21.79
ATOM	2872	OG1	THR	B	83	54.406	21.013	59.135	1.00	23.91
ATOM	2873	CG2	THR	B	83	54.006	20.709	56.804	1.00	19.27
ATOM	2874	C	THR	B	83	55.581	23.645	58.723	1.00	17.70
ATOM	2875	O	THR	B	83	54.598	24.307	59.062	1.00	19.85
ATOM	2876	N	ARG	B	84	56.768	23.799	59.299	1.00	17.15
ATOM	2877	CA	ARG	B	84	56.880	24.747	60.406	1.00	21.26
ATOM	2878	CB	ARG	B	84	58.224	24.629	61.116	1.00	18.18
ATOM	2879	CG	ARG	B	84	59.419	25.008	60.264	1.00	19.29
ATOM	2880	CD	ARG	B	84	60.737	24.812	60.999	1.00	26.01
ATOM	2881	NE	ARG	B	84	61.852	25.270	60.167	1.00	27.31
ATOM	2882	CZ	ARG	B	84	62.526	26.386	60.390	1.00	21.69
ATOM	2883	NH1	ARG	B	84	62.193	27.161	61.422	1.00	22.24
ATOM	2884	NH2	ARG	B	84	63.521	26.738	59.595	1.00	19.19
ATOM	2885	C	ARG	B	84	56.677	26.175	59.897	1.00	24.93
ATOM	2886	O	ARG	B	84	56.868	26.452	58.713	1.00	16.17
ATOM	2887	N	VAL	B	85	56.283	27.055	60.809	1.00	19.84
ATOM	2888	CA	VAL	B	85	56.219	28.487	60.544	1.00	18.69
ATOM	2889	CB	VAL	B	85	55.146	29.192	61.386	1.00	16.28
ATOM	2890	CG1	VAL	B	85	55.102	30.685	61.039	1.00	23.59
ATOM	2891	CG2	VAL	B	85	53.777	28.590	61.148	1.00	12.01
ATOM	2892	C	VAL	B	85	57.571	29.131	60.815	1.00	17.55
ATOM	2893	O	VAL	B	85	58.203	28.908	61.852	1.00	25.85
ATOM	2894	N	LYS	B	86	58.044	29.941	59.868	1.00	18.16
ATOM	2895	CA	LYS	B	86	59.348	30.575	60.022	1.00	22.13
ATOM	2896	CB	LYS	B	86	60.149	30.469	58.717	1.00	23.96
ATOM	2897	CG	LYS	B	86	60.650	29.070	58.416	1.00	23.28
ATOM	2898	CD	LYS	B	86	60.864	28.859	56.929	1.00	35.17
ATOM	2899	CE	LYS	B	86	61.343	27.446	56.630	1.00	42.63
ATOM	2900	NZ	LYS	B	86	62.795	27.284	56.931	1.00	62.83
ATOM	2901	C	LYS	B	86	59.240	32.051	60.400	1.00	25.13
ATOM	2902	O	LYS	B	86	58.381	32.768	59.867	1.00	22.58
ATOM	2903	N	LEU	B	87	60.112	32.497	61.294	1.00	23.50
ATOM	2904	CA	LEU	B	87	60.204	33.921	61.604	1.00	27.10
ATOM	2905	CB	LEU	B	87	60.653	34.189	63.033	1.00	25.75
ATOM	2906	CG	LEU	B	87	59.927	33.453	64.164	1.00	30.29
ATOM	2907	CD1	LEU	B	87	60.620	33.695	65.499	1.00	34.70
ATOM	2908	CD2	LEU	B	87	58.467	33.866	64.258	1.00	17.70
ATOM	2909	C	LEU	B	87	61.205	34.550	60.631	1.00	35.83
ATOM	2910	O	LEU	B	87	62.080	33.839	60.127	1.00	31.73
ATOM	2911	N	SER	B	88	61.082	35.842	60.383	1.00	37.78

**FIGURE 158**

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ATOM	2912	CA	SER	B	88	62.022	36.595	59.565	1.00	39.22
ATOM	2913	CB	SER	B	88	61.501	38.024	59.360	1.00	37.70
ATOM	2914	OG	SER	B	88	62.058	38.842	60.384	1.00	56.30
ATOM	2915	C	SER	B	88	63.405	36.685	60.202	1.00	54.75
ATOM	2916	O	SER	B	88	63.540	36.552	61.419	1.00	56.41
ATOM	2917	N	ASN	B	89	64.420	36.927	59.382	1.00	75.33
ATOM	2918	CA	ASN	B	89	65.802	37.090	59.812	1.00	89.87
ATOM	2919	CB	ASN	B	89	66.720	37.253	58.599	1.00	90.11
ATOM	2920	CG	ASN	B	89	66.156	38.159	57.525	1.00	90.26
ATOM	2921	OD1	ASN	B	89	65.038	38.666	57.636	1.00	84.88
ATOM	2922	ND2	ASN	B	89	66.932	38.372	56.466	1.00	89.32
ATOM	2923	C	ASN	B	89	65.966	38.281	60.749	1.00	104.61
ATOM	2924	O	ASN	B	89	65.046	39.100	60.888	1.00	106.28
ATOM	2925	N	VAL	B	90	67.134	38.404	61.376	1.00	117.38
ATOM	2926	CA	VAL	B	90	67.381	39.480	62.324	1.00	128.11
ATOM	2927	CB	VAL	B	90	66.614	39.227	63.643	1.00	131.44
ATOM	2928	CG1	VAL	B	90	65.182	39.743	63.544	1.00	127.66
ATOM	2929	CG2	VAL	B	90	66.623	37.744	64.000	1.00	133.27
ATOM	2930	C	VAL	B	90	68.865	39.654	62.644	1.00	131.59
ATOM	2931	O	VAL	B	90	69.731	39.301	61.846	1.00	124.37
ATOM	2932	N	ASP	B	91	69.146	40.207	63.826	1.00	135.31
ATOM	2933	CA	ASP	B	91	70.502	40.379	64.339	1.00	137.26
ATOM	2934	CB	ASP	B	91	70.482	40.895	65.775	1.00	133.67
ATOM	2935	CG	ASP	B	91	71.529	41.944	66.104	1.00	129.34
ATOM	2936	OD1	ASP	B	91	72.177	42.475	65.180	1.00	133.28
ATOM	2937	OD2	ASP	B	91	71.709	42.256	67.303	1.00	105.69
ATOM	2938	C	ASP	B	91	71.250	39.050	64.250	1.00	141.41
ATOM	2939	O	ASP	B	91	70.663	38.007	64.553	1.00	146.90
ATOM	2940	N	ASP	B	92	72.513	39.087	63.838	1.00	141.54
ATOM	2941	CA	ASP	B	92	73.278	37.858	63.613	1.00	138.38
ATOM	2942	CB	ASP	B	92	73.621	37.167	64.928	1.00	136.13
ATOM	2943	CG	ASP	B	92	75.034	37.428	65.408	1.00	132.67
ATOM	2944	OD1	ASP	B	92	75.913	37.722	64.570	1.00	132.34
ATOM	2945	OD2	ASP	B	92	75.280	37.340	66.632	1.00	122.69
ATOM	2946	C	ASP	B	92	72.468	36.947	62.696	1.00	135.79
ATOM	2947	O	ASP	B	92	71.582	37.442	61.988	1.00	127.98
ATOM	2948	N	ASP	B	93	72.728	35.641	62.690	1.00	134.71
ATOM	2949	CA	ASP	B	93	71.890	34.782	61.848	1.00	133.27
ATOM	2950	CB	ASP	B	93	72.308	34.930	60.381	1.00	139.50
ATOM	2951	CG	ASP	B	93	71.490	35.955	59.623	1.00	143.40
ATOM	2952	OD1	ASP	B	93	70.243	35.893	59.679	1.00	148.49
ATOM	2953	OD2	ASP	B	93	72.087	36.837	58.963	1.00	144.76
ATOM	2954	C	ASP	B	93	71.922	33.319	62.260	1.00	125.52
ATOM	2955	O	ASP	B	93	72.239	32.451	61.438	1.00	114.55
ATOM	2956	N	PRO	B	94	71.590	32.989	63.500	1.00	122.86
ATOM	2957	CA	PRO	B	94	71.432	31.573	63.874	1.00	118.08
ATOM	2958	CB	PRO	B	94	71.775	31.592	65.361	1.00	119.79
ATOM	2959	CG	PRO	B	94	71.314	32.928	65.833	1.00	121.96
ATOM	2960	CD	PRO	B	94	71.339	33.859	64.657	1.00	123.38
ATOM	2961	C	PRO	B	94	69.991	31.145	63.644	1.00	109.34
ATOM	2962	O	PRO	B	94	69.324	31.674	62.746	1.00	96.86
ATOM	2963	N	CYS	B	95	69.466	30.208	64.436	1.00	101.66

**FIGURE 159**

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ATOM	2964	CA	CYS	B	95	68.051	29.878	64.254	1.00	88.82
ATOM	2965	CB	CYS	B	95	67.674	28.484	64.735	1.00	90.50
ATOM	2966	SG	CYS	B	95	66.393	27.656	63.760	1.00	135.13
ATOM	2967	C	CYS	B	95	67.191	30.918	64.979	1.00	70.52
ATOM	2968	O	CYS	B	95	66.476	30.585	65.919	1.00	43.58
ATOM	2969	N	SER	B	96	67.296	32.147	64.494	1.00	60.87
ATOM	2970	CA	SER	B	96	66.446	33.248	64.919	1.00	51.63
ATOM	2971	CB	SER	B	96	67.101	34.608	64.689	1.00	54.58
ATOM	2972	OG	SER	B	96	67.550	34.751	63.352	1.00	59.05
ATOM	2973	C	SER	B	96	65.124	33.166	64.152	1.00	37.78
ATOM	2974	O	SER	B	96	64.267	34.025	64.352	1.00	49.18
ATOM	2975	N	ASP	B	97	65.021	32.137	63.309	1.00	31.64
ATOM	2976	CA	ASP	B	97	63.824	31.873	62.516	1.00	27.57
ATOM	2977	CB	ASP	B	97	64.227	31.446	61.103	1.00	23.15
ATOM	2978	CG	ASP	B	97	64.442	29.970	60.866	1.00	34.09
ATOM	2979	OD1	ASP	B	97	64.645	29.151	61.783	1.00	28.80
ATOM	2980	OD2	ASP	B	97	64.413	29.585	59.675	1.00	47.02
ATOM	2981	C	ASP	B	97	62.890	30.840	63.150	1.00	18.50
ATOM	2982	O	ASP	B	97	61.800	30.601	62.619	1.00	19.32
ATOM	2983	N	TYR	B	98	63.315	30.229	64.254	1.00	22.52
ATOM	2984	CA	TYR	B	98	62.577	29.112	64.817	1.00	19.25
ATOM	2985	CB	TYR	B	98	63.509	28.066	65.493	1.00	21.90
ATOM	2986	CG	TYR	B	98	62.669	26.947	66.087	1.00	23.21
ATOM	2987	CD1	TYR	B	98	62.108	26.015	65.211	1.00	18.81
ATOM	2988	CE1	TYR	B	98	61.328	24.979	65.683	1.00	18.20
ATOM	2989	CZ	TYR	B	98	61.098	24.872	67.048	1.00	27.42
ATOM	2990	OH	TYR	B	98	60.311	23.833	67.506	1.00	16.71
ATOM	2991	CE2	TYR	B	98	61.630	25.785	67.929	1.00	16.10
ATOM	2992	CD2	TYR	B	98	62.415	26.819	67.453	1.00	15.44
ATOM	2993	C	TYR	B	98	61.524	29.537	65.833	1.00	21.92
ATOM	2994	O	TYR	B	98	61.779	30.233	66.820	1.00	22.98
ATOM	2995	N	ILE	B	99	60.320	29.031	65.582	1.00	16.17
ATOM	2996	CA	ILE	B	99	59.284	29.019	66.598	1.00	17.96
ATOM	2997	CB	ILE	B	99	58.282	30.173	66.466	1.00	18.22
ATOM	2998	CG1	ILE	B	99	57.208	30.134	67.564	1.00	17.54
ATOM	2999	CD1	ILE	B	99	56.327	31.368	67.580	1.00	25.26
ATOM	3000	CG2	ILE	B	99	57.629	30.221	65.094	1.00	17.90
ATOM	3001	C	ILE	B	99	58.551	27.679	66.534	1.00	23.11
ATOM	3002	O	ILE	B	99	58.319	27.138	65.454	1.00	19.27
ATOM	3003	N	ASN	B	100	58.185	27.139	67.694	1.00	23.62
ATOM	3004	CA	ASN	B	100	57.381	25.908	67.687	1.00	17.64
ATOM	3005	CB	ASN	B	100	57.354	25.270	69.079	1.00	18.48
ATOM	3006	CG	ASN	B	100	56.794	23.863	69.078	1.00	13.37
ATOM	3007	OD1	ASN	B	100	55.775	23.626	68.446	1.00	18.56
ATOM	3008	ND2	ASN	B	100	57.453	22.935	69.780	1.00	17.03
ATOM	3009	C	ASN	B	100	55.995	26.223	67.175	1.00	17.36
ATOM	3010	O	ASN	B	100	55.058	26.498	67.938	1.00	16.80
ATOM	3011	N	ALA	B	101	55.867	26.172	65.839	1.00	13.82
ATOM	3012	CA	ALA	B	101	54.584	26.447	65.209	1.00	8.38
ATOM	3013	CB	ALA	B	101	54.344	27.949	65.090	1.00	14.14
ATOM	3014	C	ALA	B	101	54.488	25.803	63.815	1.00	10.67
ATOM	3015	O	ALA	B	101	55.532	25.598	63.187	1.00	17.26

**FIGURE 160**

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Three Dimensional Coordinates of HPTPbeta

ATOM	3016	N	SER B 102	53.268	25.514	63.375	1.00	10.49
ATOM	3017	CA	SER B 102	53.065	24.791	62.119	1.00	15.63
ATOM	3018	CB	SER B 102	52.782	23.308	62.372	1.00	17.37
ATOM	3019	OG	SER B 102	53.658	22.704	63.287	1.00	15.04
ATOM	3020	C	SER B 102	51.879	25.328	61.337	1.00	17.17
ATOM	3021	O	SER B 102	50.844	25.684	61.902	1.00	18.22
ATOM	3022	N	TYR B 103	51.990	25.368	60.011	1.00	16.28
ATOM	3023	CA	TYR B 103	50.851	25.708	59.172	1.00	17.81
ATOM	3024	CB	TYR B 103	51.321	26.133	57.778	1.00	18.72
ATOM	3025	CG	TYR B 103	52.139	27.398	57.701	1.00	12.87
ATOM	3026	CD1	TYR B 103	51.547	28.633	57.956	1.00	23.49
ATOM	3027	CE1	TYR B 103	52.288	29.795	57.886	1.00	21.55
ATOM	3028	CZ	TYR B 103	53.619	29.769	57.564	1.00	22.19
ATOM	3029	OH	TYR B 103	54.334	30.948	57.499	1.00	32.87
ATOM	3030	CE2	TYR B 103	54.238	28.562	57.303	1.00	23.02
ATOM	3031	CD2	TYR B 103	53.483	27.400	57.377	1.00	19.58
ATOM	3032	C	TYR B 103	49.915	24.504	59.015	1.00	24.37
ATOM	3033	O	TYR B 103	50.388	23.378	58.803	1.00	20.89
ATOM	3034	N	ILE B 104	48.612	24.720	59.106	1.00	17.36
ATOM	3035	CA	ILE B 104	47.596	23.693	58.951	1.00	20.36
ATOM	3036	CB	ILE B 104	46.894	23.397	60.301	1.00	24.05
ATOM	3037	CG1	ILE B 104	47.859	23.206	61.472	1.00	23.04
ATOM	3038	CD1	ILE B 104	48.755	21.992	61.352	1.00	23.46
ATOM	3039	CG2	ILE B 104	45.961	22.211	60.187	1.00	28.18
ATOM	3040	C	ILE B 104	46.532	24.093	57.945	1.00	23.59
ATOM	3041	O	ILE B 104	45.944	25.175	58.016	1.00	20.30
ATOM	3042	N	PRO B 105	46.247	23.225	56.979	1.00	20.21
ATOM	3043	CA	PRO B 105	45.145	23.455	56.051	1.00	17.40
ATOM	3044	CB	PRO B 105	45.259	22.284	55.052	1.00	20.56
ATOM	3045	CG	PRO B 105	46.684	21.880	55.173	1.00	22.00
ATOM	3046	CD	PRO B 105	46.978	21.979	56.663	1.00	22.12
ATOM	3047	C	PRO B 105	43.779	23.370	56.704	1.00	23.93
ATOM	3048	O	PRO B 105	43.584	22.625	57.664	1.00	32.98
ATOM	3049	N	GLY B 106	42.850	24.133	56.156	1.00	21.83
ATOM	3050	CA	GLY B 106	41.473	24.095	56.614	1.00	27.14
ATOM	3051	C	GLY B 106	40.541	23.642	55.502	1.00	26.84
ATOM	3052	O	GLY B 106	40.994	23.136	54.472	1.00	26.33
ATOM	3053	N	ASN B 107	39.234	23.821	55.689	1.00	23.33
ATOM	3054	CA	ASN B 107	38.309	23.403	54.648	1.00	33.39
ATOM	3055	CB	ASN B 107	36.859	23.587	55.104	1.00	40.50
ATOM	3056	CG	ASN B 107	36.393	22.414	55.950	1.00	42.30
ATOM	3057	OD1	ASN B 107	37.022	21.357	55.975	1.00	50.74
ATOM	3058	ND2	ASN B 107	35.282	22.645	56.633	1.00	52.70
ATOM	3059	C	ASN B 107	38.485	24.195	53.354	1.00	41.23
ATOM	3060	O	ASN B 107	38.042	23.711	52.312	1.00	34.23
ATOM	3061	N	ASN B 108	39.085	25.371	53.459	1.00	40.92
ATOM	3062	CA	ASN B 108	39.051	26.395	52.426	1.00	31.26
ATOM	3063	CB	ASN B 108	38.527	27.684	53.085	1.00	41.62
ATOM	3064	CG	ASN B 108	37.199	27.416	53.777	1.00	52.11
ATOM	3065	OD1	ASN B 108	36.227	27.042	53.112	1.00	34.83
ATOM	3066	ND2	ASN B 108	37.163	27.598	55.094	1.00	31.17
ATOM	3067	C	ASN B 108	40.386	26.637	51.756	1.00	31.83

**FIGURE 161**

ATOM	3068	O	ASN	B	108	40.482	26.772	50.534	1.00	39.22
ATOM	3069	N	PHE	B	109	41.468	26.703	52.531	1.00	30.33
ATOM	3070	CA	PHE	B	109	42.774	26.919	51.911	1.00	21.96
ATOM	3071	CB	PHE	B	109	43.085	28.400	51.749	1.00	20.80
ATOM	3072	CG	PHE	B	109	42.708	29.329	52.890	1.00	28.79
ATOM	3073	CD1	PHE	B	109	43.692	29.911	53.674	1.00	25.92
ATOM	3074	CE1	PHE	B	109	43.376	30.759	54.718	1.00	31.45
ATOM	3075	CZ	PHE	B	109	42.054	31.055	54.993	1.00	37.19
ATOM	3076	CE2	PHE	B	109	41.064	30.476	54.218	1.00	41.01
ATOM	3077	CD2	PHE	B	109	41.386	29.628	53.175	1.00	32.74
ATOM	3078	C	PHE	B	109	43.860	26.236	52.741	1.00	20.75
ATOM	3079	O	PHE	B	109	43.593	25.834	53.871	1.00	23.61
ATOM	3080	N	ARG	B	110	45.045	26.137	52.178	1.00	19.49
ATOM	3081	CA	ARG	B	110	46.176	25.416	52.710	1.00	22.84
ATOM	3082	CB	ARG	B	110	47.210	25.227	51.575	1.00	21.99
ATOM	3083	CG	ARG	B	110	46.634	24.284	50.511	1.00	30.90
ATOM	3084	CD	ARG	B	110	47.726	23.349	50.019	1.00	39.83
ATOM	3085	NE	ARG	B	110	47.226	22.405	49.014	1.00	54.08
ATOM	3086	CZ	ARG	B	110	47.347	21.087	49.185	1.00	72.63
ATOM	3087	NH1	ARG	B	110	47.930	20.619	50.282	1.00	79.88
ATOM	3088	NH2	ARG	B	110	46.889	20.253	48.262	1.00	87.83
ATOM	3089	C	ARG	B	110	46.863	26.073	53.890	1.00	29.52
ATOM	3090	O	ARG	B	110	47.454	25.377	54.728	1.00	28.77
ATOM	3091	N	ARG	B	111	46.847	27.402	53.997	1.00	20.01
ATOM	3092	CA	ARG	B	111	47.476	27.910	55.233	1.00	24.11
ATOM	3093	CB	ARG	B	111	48.635	28.837	54.943	1.00	22.68
ATOM	3094	CG	ARG	B	111	49.880	28.255	54.313	1.00	19.86
ATOM	3095	CD	ARG	B	111	50.961	29.325	54.127	1.00	25.94
ATOM	3096	NE	ARG	B	111	52.272	28.701	53.923	1.00	30.60
ATOM	3097	CZ	ARG	B	111	53.449	29.295	54.017	1.00	21.38
ATOM	3098	NH1	ARG	B	111	53.524	30.583	54.324	1.00	42.58
ATOM	3099	NH2	ARG	B	111	54.570	28.620	53.808	1.00	29.00
ATOM	3100	C	ARG	B	111	46.398	28.613	56.060	1.00	21.97
ATOM	3101	O	ARG	B	111	46.481	29.791	56.388	1.00	19.77
ATOM	3102	N	GLU	B	112	45.354	27.865	56.383	1.00	16.17
ATOM	3103	CA	GLU	B	112	44.185	28.417	57.045	1.00	16.65
ATOM	3104	CB	GLU	B	112	42.994	27.458	56.911	1.00	17.98
ATOM	3105	CG	GLU	B	112	41.678	28.188	57.126	1.00	27.35
ATOM	3106	CD	GLU	B	112	40.479	27.519	56.495	1.00	27.95
ATOM	3107	OE1	GLU	B	112	39.370	27.881	56.934	1.00	28.26
ATOM	3108	OE2	GLU	B	112	40.609	26.665	55.596	1.00	25.50
ATOM	3109	C	GLU	B	112	44.461	28.700	58.518	1.00	23.99
ATOM	3110	O	GLU	B	112	43.974	29.662	59.122	1.00	19.68
ATOM	3111	N	TYR	B	113	45.280	27.832	59.107	1.00	19.82
ATOM	3112	CA	TYR	B	113	45.597	28.015	60.522	1.00	17.80
ATOM	3113	CB	TYR	B	113	44.940	26.997	61.450	1.00	25.68
ATOM	3114	CG	TYR	B	113	43.505	26.647	61.175	1.00	20.88
ATOM	3115	CD1	TYR	B	113	43.208	25.633	60.274	1.00	19.21
ATOM	3116	CE1	TYR	B	113	41.902	25.283	60.002	1.00	20.32
ATOM	3117	CZ	TYR	B	113	40.871	25.942	60.626	1.00	20.68
ATOM	3118	OH	TYR	B	113	39.572	25.584	60.345	1.00	24.62
ATOM	3119	CE2	TYR	B	113	41.133	26.956	61.534	1.00	14.80

FIGURE 162

ATOM	3120	CD2	TYR	B	113	42.450	27.300	61.802	1.00	15.14
ATOM	3121	C	TYR	B	113	47.090	27.916	60.726	1.00	11.85
ATOM	3122	O	TYR	B	113	47.865	27.314	59.989	1.00	18.08
ATOM	3123	N	ILE	B	114	47.491	28.590	61.805	1.00	17.37
ATOM	3124	CA	ILE	B	114	48.801	28.423	62.389	1.00	12.30
ATOM	3125	CB	ILE	B	114	49.576	29.751	62.490	1.00	19.28
ATOM	3126	CG1	ILE	B	114	50.011	30.240	61.102	1.00	19.55
ATOM	3127	CD1	ILE	B	114	51.019	31.347	61.037	1.00	18.32
ATOM	3128	CG2	ILE	B	114	50.722	29.619	63.473	1.00	10.43
ATOM	3129	C	ILE	B	114	48.607	27.809	63.771	1.00	13.65
ATOM	3130	O	ILE	B	114	47.920	28.374	64.607	1.00	20.47
ATOM	3131	N	VAL	B	115	49.207	26.630	63.960	1.00	18.21
ATOM	3132	CA	VAL	B	115	49.068	25.982	65.260	1.00	21.54
ATOM	3133	CB	VAL	B	115	48.724	24.487	65.134	1.00	26.76
ATOM	3134	CG1	VAL	B	115	49.151	23.747	66.394	1.00	21.17
ATOM	3135	CG2	VAL	B	115	47.236	24.353	64.859	1.00	23.83
ATOM	3136	C	VAL	B	115	50.366	26.144	66.018	1.00	15.13
ATOM	3137	O	VAL	B	115	51.470	26.092	65.484	1.00	15.47
ATOM	3138	N	THR	B	116	50.255	26.378	67.328	1.00	14.92
ATOM	3139	CA	THR	B	116	51.530	26.594	68.022	1.00	12.65
ATOM	3140	CB	THR	B	116	51.927	28.078	67.913	1.00	16.69
ATOM	3141	OG1	THR	B	116	53.253	28.333	68.385	1.00	15.71
ATOM	3142	CG2	THR	B	116	50.956	28.910	68.764	1.00	17.43
ATOM	3143	C	THR	B	116	51.360	26.112	69.463	1.00	11.03
ATOM	3144	O	THR	B	116	50.246	25.848	69.902	1.00	11.09
ATOM	3145	N	GLN	B	117	52.459	25.961	70.161	1.00	12.28
ATOM	3146	CA	GLN	B	117	52.444	25.635	71.579	1.00	13.83
ATOM	3147	CB	GLN	B	117	53.863	25.230	71.985	1.00	14.30
ATOM	3148	CG	GLN	B	117	54.898	26.324	71.994	1.00	10.96
ATOM	3149	CD	GLN	B	117	56.300	25.936	72.377	1.00	19.11
ATOM	3150	OE1	GLN	B	117	56.676	24.759	72.435	1.00	18.55
ATOM	3151	NE2	GLN	B	117	57.164	26.915	72.649	1.00	17.68
ATOM	3152	C	GLN	B	117	51.991	26.834	72.400	1.00	20.95
ATOM	3153	O	GLN	B	117	52.025	27.946	71.859	1.00	14.87
ATOM	3154	N	GLY	B	118	51.630	26.648	73.666	1.00	14.16
ATOM	3155	CA	GLY	B	118	51.461	27.815	74.553	1.00	11.25
ATOM	3156	C	GLY	B	118	52.809	28.483	74.732	1.00	11.67
ATOM	3157	O	GLY	B	118	53.804	27.871	75.122	1.00	18.12
ATOM	3158	N	PRO	B	119	52.897	29.771	74.383	1.00	15.72
ATOM	3159	CA	PRO	B	119	54.165	30.499	74.473	1.00	17.34
ATOM	3160	CB	PRO	B	119	53.761	31.941	74.150	1.00	18.05
ATOM	3161	CG	PRO	B	119	52.540	31.802	73.307	1.00	16.94
ATOM	3162	CD	PRO	B	119	51.802	30.606	73.862	1.00	18.02
ATOM	3163	C	PRO	B	119	54.767	30.441	75.878	1.00	12.82
ATOM	3164	O	PRO	B	119	54.020	30.432	76.865	1.00	17.29
ATOM	3165	N	LEU	B	120	56.088	30.366	75.889	1.00	22.15
ATOM	3166	CA	LEU	B	120	56.900	30.382	77.094	1.00	25.66
ATOM	3167	CB	LEU	B	120	58.171	29.551	76.952	1.00	21.93
ATOM	3168	CG	LEU	B	120	57.984	28.079	76.585	1.00	26.05
ATOM	3169	CD1	LEU	B	120	59.239	27.508	75.941	1.00	24.09
ATOM	3170	CD2	LEU	B	120	57.592	27.308	77.828	1.00	25.20
ATOM	3171	C	LEU	B	120	57.275	31.832	77.417	1.00	23.76

FIGURE 163

ATOM	3172	O	LEU	B	120	57.201	32.682	76.533	1.00	21.98
ATOM	3173	N	PRO	B	121	57.659	32.087	78.659	1.00	19.89
ATOM	3174	CA	PRO	B	121	58.151	33.418	79.028	1.00	22.32
ATOM	3175	CB	PRO	B	121	58.751	33.181	80.415	1.00	25.42
ATOM	3176	CG	PRO	B	121	57.957	32.033	80.964	1.00	28.77
ATOM	3177	CD	PRO	B	121	57.648	31.145	79.793	1.00	23.68
ATOM	3178	C	PRO	B	121	59.228	33.871	78.048	1.00	24.84
ATOM	3179	O	PRO	B	121	59.278	35.032	77.646	1.00	28.28
ATOM	3180	N	GLY	B	122	60.083	32.929	77.647	1.00	24.79
ATOM	3181	CA	GLY	B	122	61.164	33.214	76.738	1.00	26.40
ATOM	3182	C	GLY	B	122	60.850	33.227	75.260	1.00	19.61
ATOM	3183	O	GLY	B	122	61.744	33.609	74.493	1.00	26.22
ATOM	3184	N	THR	B	123	59.660	32.849	74.813	1.00	19.28
ATOM	3185	CA	THR	B	123	59.353	32.851	73.388	1.00	21.38
ATOM	3186	CB	THR	B	123	59.009	31.450	72.839	1.00	17.49
ATOM	3187	OG1	THR	B	123	57.825	30.952	73.499	1.00	18.47
ATOM	3188	CG2	THR	B	123	60.136	30.465	73.099	1.00	21.69
ATOM	3189	C	THR	B	123	58.182	33.770	73.092	1.00	18.63
ATOM	3190	O	THR	B	123	57.760	33.895	71.942	1.00	21.10
ATOM	3191	N	LYS	B	124	57.616	34.408	74.128	1.00	17.85
ATOM	3192	CA	LYS	B	124	56.401	35.150	73.790	1.00	19.83
ATOM	3193	CB	LYS	B	124	55.659	35.684	74.999	1.00	20.67
ATOM	3194	CG	LYS	B	124	56.454	36.481	76.010	1.00	22.46
ATOM	3195	CD	LYS	B	124	55.540	36.754	77.204	1.00	32.02
ATOM	3196	CE	LYS	B	124	56.234	37.523	78.317	1.00	34.93
ATOM	3197	NZ	LYS	B	124	55.312	37.592	79.499	1.00	34.71
ATOM	3198	C	LYS	B	124	56.716	36.320	72.843	1.00	17.31
ATOM	3199	O	LYS	B	124	55.797	36.775	72.162	1.00	18.88
ATOM	3200	N	ASP	B	125	57.972	36.753	72.843	1.00	22.11
ATOM	3201	CA	ASP	B	125	58.311	37.850	71.919	1.00	32.47
ATOM	3202	CB	ASP	B	125	59.648	38.486	72.278	1.00	25.76
ATOM	3203	CG	ASP	B	125	59.590	39.330	73.544	1.00	26.93
ATOM	3204	OD1	ASP	B	125	58.487	39.534	74.093	1.00	23.69
ATOM	3205	OD2	ASP	B	125	60.656	39.797	73.994	1.00	34.33
ATOM	3206	C	ASP	B	125	58.275	37.287	70.500	1.00	25.35
ATOM	3207	O	ASP	B	125	57.755	37.900	69.568	1.00	20.65
ATOM	3208	N	ASP	B	126	58.823	36.085	70.361	1.00	23.45
ATOM	3209	CA	ASP	B	126	58.740	35.345	69.103	1.00	28.27
ATOM	3210	CB	ASP	B	126	59.416	33.982	69.251	1.00	31.70
ATOM	3211	CG	ASP	B	126	60.912	34.025	69.453	1.00	37.78
ATOM	3212	OD1	ASP	B	126	61.567	34.998	69.021	1.00	35.70
ATOM	3213	OD2	ASP	B	126	61.452	33.065	70.055	1.00	41.12
ATOM	3214	C	ASP	B	126	57.297	35.155	68.655	1.00	24.03
ATOM	3215	O	ASP	B	126	56.928	35.305	67.484	1.00	21.60
ATOM	3216	N	PHE	B	127	56.418	34.780	69.586	1.00	19.45
ATOM	3217	CA	PHE	B	127	55.017	34.576	69.246	1.00	18.59
ATOM	3218	CB	PHE	B	127	54.220	34.196	70.505	1.00	15.64
ATOM	3219	CG	PHE	B	127	52.714	34.146	70.345	1.00	18.56
ATOM	3220	CD1	PHE	B	127	52.137	32.939	69.936	1.00	16.99
ATOM	3221	CE1	PHE	B	127	50.771	32.846	69.790	1.00	15.74
ATOM	3222	CZ	PHE	B	127	49.941	33.925	70.023	1.00	21.60
ATOM	3223	CE2	PHE	B	127	50.506	35.127	70.433	1.00	14.92

FIGURE 164



ATOM	3224	CD2	PHE	B	127	51.865	35.219	70.593	1.00	11.80
ATOM	3225	C	PHE	B	127	54.417	35.835	68.628	1.00	15.63
ATOM	3226	O	PHE	B	127	53.711	35.819	67.627	1.00	14.92
ATOM	3227	N	TRP	B	128	54.630	36.977	69.295	1.00	14.67
ATOM	3228	CA	TRP	B	128	53.959	38.186	68.805	1.00	16.59
ATOM	3229	CB	TRP	B	128	53.990	39.330	69.835	1.00	14.86
ATOM	3230	CG	TRP	B	128	52.966	39.089	70.927	1.00	13.08
ATOM	3231	CD1	TRP	B	128	53.298	38.867	72.240	1.00	14.73
ATOM	3232	NE1	TRP	B	128	52.169	38.677	72.995	1.00	12.11
ATOM	3233	CE2	TRP	B	128	51.074	38.775	72.179	1.00	13.55
ATOM	3234	CD2	TRP	B	128	51.542	39.029	70.874	1.00	12.42
ATOM	3235	CE3	TRP	B	128	50.575	39.166	69.868	1.00	13.65
ATOM	3236	CZ3	TRP	B	128	49.246	39.052	70.168	1.00	19.72
ATOM	3237	CH2	TRP	B	128	48.814	38.796	71.482	1.00	22.04
ATOM	3238	CZ2	TRP	B	128	49.725	38.655	72.495	1.00	19.42
ATOM	3239	C	TRP	B	128	54.577	38.581	67.460	1.00	13.73
ATOM	3240	O	TRP	B	128	53.849	39.046	66.583	1.00	22.69
ATOM	3241	N	LYS	B	129	55.877	38.373	67.292	1.00	16.55
ATOM	3242	CA	LYS	B	129	56.523	38.666	66.013	1.00	19.71
ATOM	3243	CB	LYS	B	129	58.015	38.363	66.108	1.00	22.40
ATOM	3244	CG	LYS	B	129	58.811	38.769	64.883	1.00	25.13
ATOM	3245	CD	LYS	B	129	60.267	38.316	64.882	1.00	28.99
ATOM	3246	CE	LYS	B	129	60.695	38.135	63.426	1.00	37.78
ATOM	3247	NZ	LYS	B	129	62.137	37.915	63.203	1.00	37.99
ATOM	3248	C	LYS	B	129	55.856	37.871	64.893	1.00	32.26
ATOM	3249	O	LYS	B	129	55.560	38.383	63.811	1.00	23.65
ATOM	3250	N	MET	B	130	55.586	36.593	65.147	1.00	23.24
ATOM	3251	CA	MET	B	130	54.908	35.732	64.180	1.00	23.01
ATOM	3252	CB	MET	B	130	54.804	34.277	64.673	1.00	20.78
ATOM	3253	CG	MET	B	130	53.968	33.376	63.751	1.00	16.92
ATOM	3254	SD	MET	B	130	53.852	31.724	64.483	1.00	24.92
ATOM	3255	CE	MET	B	130	52.612	31.968	65.746	1.00	15.70
ATOM	3256	C	MET	B	130	53.516	36.249	63.878	1.00	16.75
ATOM	3257	O	MET	B	130	53.068	36.268	62.733	1.00	21.38
ATOM	3258	N	VAL	B	131	52.799	36.648	64.923	1.00	14.58
ATOM	3259	CA	VAL	B	131	51.451	37.179	64.697	1.00	11.14
ATOM	3260	CB	VAL	B	131	50.818	37.503	66.056	1.00	24.53
ATOM	3261	CG1	VAL	B	131	49.602	38.413	65.954	1.00	18.70
ATOM	3262	CG2	VAL	B	131	50.452	36.195	66.761	1.00	13.43
ATOM	3263	C	VAL	B	131	51.546	38.398	63.773	1.00	16.31
ATOM	3264	O	VAL	B	131	50.746	38.556	62.845	1.00	23.18
ATOM	3265	N	TRP	B	132	52.527	39.248	64.033	1.00	21.92
ATOM	3266	CA	TRP	B	132	52.707	40.480	63.256	1.00	28.19
ATOM	3267	CB	TRP	B	132	53.735	41.385	63.925	1.00	16.64
ATOM	3268	CG	TRP	B	132	54.047	42.651	63.178	1.00	32.79
ATOM	3269	CD1	TRP	B	132	55.127	42.862	62.368	1.00	31.98
ATOM	3270	NE1	TRP	B	132	55.094	44.132	61.851	1.00	28.50
ATOM	3271	CE2	TRP	B	132	53.983	44.776	62.318	1.00	33.94
ATOM	3272	CD2	TRP	B	132	53.299	43.876	63.159	1.00	30.28
ATOM	3273	CE3	TRP	B	132	52.112	44.298	63.769	1.00	34.50
ATOM	3274	CZ3	TRP	B	132	51.663	45.586	63.522	1.00	38.33
ATOM	3275	CH2	TRP	B	132	52.373	46.450	62.681	1.00	35.73

**FIGURE 165**

ATOM	3276	CZ2	TRP	B	132	53.535	46.073	62.065	1.00	39.63
ATOM	3277	C	TRP	B	132	53.126	40.162	61.823	1.00	30.15
ATOM	3278	O	TRP	B	132	52.480	40.618	60.883	1.00	22.50
ATOM	3279	N	GLU	B	133	54.185	39.377	61.636	1.00	27.59
ATOM	3280	CA	GLU	B	133	54.620	39.019	60.289	1.00	24.71
ATOM	3281	CB	GLU	B	133	55.914	38.198	60.359	1.00	21.40
ATOM	3282	CG	GLU	B	133	56.932	38.826	61.304	1.00	27.89
ATOM	3283	CD	GLU	B	133	58.303	38.200	61.158	1.00	32.83
ATOM	3284	OE1	GLU	B	133	58.377	36.959	61.046	1.00	36.49
ATOM	3285	OE2	GLU	B	133	59.287	38.963	61.157	1.00	38.19
ATOM	3286	C	GLU	B	133	53.583	38.245	59.492	1.00	28.74
ATOM	3287	O	GLU	B	133	53.540	38.416	58.266	1.00	22.81
ATOM	3288	N	GLN	B	134	52.763	37.406	60.128	1.00	20.49
ATOM	3289	CA	GLN	B	134	51.817	36.563	59.392	1.00	16.15
ATOM	3290	CB	GLN	B	134	51.619	35.216	60.088	1.00	20.39
ATOM	3291	CG	GLN	B	134	52.869	34.348	60.135	1.00	23.00
ATOM	3292	CD	GLN	B	134	53.168	33.663	58.815	1.00	29.61
ATOM	3293	OE1	GLN	B	134	52.258	33.147	58.166	1.00	37.61
ATOM	3294	NE2	GLN	B	134	54.437	33.658	58.425	1.00	26.32
ATOM	3295	C	GLN	B	134	50.466	37.236	59.220	1.00	19.93
ATOM	3296	O	GLN	B	134	49.519	36.586	58.783	1.00	24.92
ATOM	3297	N	ASN	B	135	50.372	38.515	59.575	1.00	20.36
ATOM	3298	CA	ASN	B	135	49.118	39.244	59.402	1.00	18.42
ATOM	3299	CB	ASN	B	135	48.860	39.385	57.893	1.00	28.65
ATOM	3300	CG	ASN	B	135	50.072	40.027	57.229	1.00	39.16
ATOM	3301	OD1	ASN	B	135	50.454	41.140	57.596	1.00	35.15
ATOM	3302	ND2	ASN	B	135	50.693	39.350	56.271	1.00	39.15
ATOM	3303	C	ASN	B	135	47.956	38.565	60.092	1.00	21.37
ATOM	3304	O	ASN	B	135	46.828	38.506	59.609	1.00	20.97
ATOM	3305	N	VAL	B	136	48.226	38.024	61.282	1.00	23.56
ATOM	3306	CA	VAL	B	136	47.159	37.346	62.021	1.00	22.94
ATOM	3307	CB	VAL	B	136	47.773	36.475	63.134	1.00	19.22
ATOM	3308	CG1	VAL	B	136	46.690	35.933	64.043	1.00	20.50
ATOM	3309	CG2	VAL	B	136	48.621	35.365	62.511	1.00	13.95
ATOM	3310	C	VAL	B	136	46.210	38.363	62.640	1.00	19.65
ATOM	3311	O	VAL	B	136	46.679	39.369	63.195	1.00	23.44
ATOM	3312	N	HIS	B	137	44.914	38.117	62.542	1.00	15.94
ATOM	3313	CA	HIS	B	137	43.919	38.956	63.175	1.00	22.68
ATOM	3314	CB	HIS	B	137	42.921	39.537	62.162	1.00	32.34
ATOM	3315	CG	HIS	B	137	43.539	40.472	61.174	1.00	50.91
ATOM	3316	ND1	HIS	B	137	42.795	41.144	60.227	1.00	62.67
ATOM	3317	CE1	HIS	B	137	43.597	41.891	59.487	1.00	61.13
ATOM	3318	NE2	HIS	B	137	44.835	41.728	59.922	1.00	55.36
ATOM	3319	CD2	HIS	B	137	44.823	40.845	60.971	1.00	46.21
ATOM	3320	C	HIS	B	137	43.129	38.192	64.237	1.00	21.18
ATOM	3321	O	HIS	B	137	42.446	38.847	65.029	1.00	25.91
ATOM	3322	N	ASN	B	138	43.200	36.861	64.239	1.00	20.71
ATOM	3323	CA	ASN	B	138	42.435	36.117	65.251	1.00	20.35
ATOM	3324	CB	ASN	B	138	41.167	35.466	64.683	1.00	19.57
ATOM	3325	CG	ASN	B	138	40.246	36.482	64.038	1.00	25.55
ATOM	3326	OD1	ASN	B	138	40.149	36.530	62.809	1.00	32.78
ATOM	3327	ND2	ASN	B	138	39.593	37.321	64.827	1.00	15.27

**FIGURE 166**

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ATOM	3328	C	ASN	B	138	43.316	35.057	65.905	1.00	16.32
ATOM	3329	O	ASN	B	138	44.016	34.315	65.217	1.00	22.33
ATOM	3330	N	ILE	B	139	43.256	35.021	67.224	1.00	12.38
ATOM	3331	CA	ILE	B	139	43.981	34.065	68.039	1.00	13.90
ATOM	3332	CB	ILE	B	139	45.010	34.736	68.966	1.00	17.37
ATOM	3333	CG1	ILE	B	139	46.050	35.606	68.246	1.00	18.49
ATOM	3334	CD1	ILE	B	139	47.007	36.323	69.166	1.00	12.78
ATOM	3335	CG2	ILE	B	139	45.702	33.693	69.832	1.00	17.74
ATOM	3336	C	ILE	B	139	43.005	33.252	68.883	1.00	21.32
ATOM	3337	O	ILE	B	139	42.141	33.824	69.551	1.00	17.35
ATOM	3338	N	VAL	B	140	43.161	31.923	68.805	1.00	13.24
ATOM	3339	CA	VAL	B	140	42.268	31.051	69.568	1.00	16.27
ATOM	3340	CB	VAL	B	140	41.494	30.072	68.677	1.00	27.64
ATOM	3341	CG1	VAL	B	140	40.663	29.111	69.518	1.00	15.58
ATOM	3342	CG2	VAL	B	140	40.592	30.819	67.697	1.00	23.20
ATOM	3343	C	VAL	B	140	43.114	30.311	70.610	1.00	18.13
ATOM	3344	O	VAL	B	140	44.176	29.761	70.291	1.00	14.05
ATOM	3345	N	MET	B	141	42.658	30.324	71.870	1.00	13.85
ATOM	3346	CA	MET	B	141	43.424	29.744	72.969	1.00	17.23
ATOM	3347	CB	MET	B	141	43.894	30.844	73.939	1.00	16.81
ATOM	3348	CG	MET	B	141	44.730	30.340	75.094	1.00	16.69
ATOM	3349	SD	MET	B	141	45.484	31.660	76.071	1.00	18.21
ATOM	3350	CE	MET	B	141	46.209	30.676	77.403	1.00	22.43
ATOM	3351	C	MET	B	141	42.539	28.740	73.681	1.00	18.04
ATOM	3352	O	MET	B	141	41.502	29.159	74.204	1.00	23.03
ATOM	3353	N	VAL	B	142	42.894	27.450	73.708	1.00	13.36
ATOM	3354	CA	VAL	B	142	41.913	26.540	74.325	1.00	13.57
ATOM	3355	CB	VAL	B	142	41.368	25.488	73.342	1.00	16.78
ATOM	3356	CG1	VAL	B	142	40.352	26.126	72.403	1.00	25.66
ATOM	3357	CG2	VAL	B	142	42.526	24.857	72.591	1.00	22.06
ATOM	3358	C	VAL	B	142	42.536	25.823	75.513	1.00	15.54
ATOM	3359	O	VAL	B	142	42.224	24.690	75.854	1.00	36.13
ATOM	3360	N	THR	B	143	43.443	26.538	76.161	1.00	19.81
ATOM	3361	CA	THR	B	143	44.013	26.054	77.415	1.00	23.30
ATOM	3362	CB	THR	B	143	45.474	25.625	77.268	1.00	20.98
ATOM	3363	OG1	THR	B	143	45.916	24.941	78.455	1.00	20.64
ATOM	3364	CG2	THR	B	143	46.363	26.856	77.104	1.00	18.59
ATOM	3365	C	THR	B	143	43.915	27.174	78.445	1.00	27.90
ATOM	3366	O	THR	B	143	43.801	28.343	78.083	1.00	18.82
ATOM	3367	N	GLN	B	144	43.972	26.814	79.720	1.00	24.18
ATOM	3368	CA	GLN	B	144	44.194	27.849	80.726	1.00	26.49
ATOM	3369	CB	GLN	B	144	43.490	27.554	82.038	1.00	25.93
ATOM	3370	CG	GLN	B	144	41.973	27.692	81.972	1.00	31.81
ATOM	3371	CD	GLN	B	144	41.409	27.232	83.315	1.00	43.70
ATOM	3372	OE1	GLN	B	144	41.157	28.059	84.185	1.00	50.17
ATOM	3373	NE2	GLN	B	144	41.251	25.923	83.447	1.00	42.17
ATOM	3374	C	GLN	B	144	45.701	27.911	80.950	1.00	21.88
ATOM	3375	O	GLN	B	144	46.371	26.926	80.618	1.00	18.20
ATOM	3376	N	CYS	B	145	46.176	29.017	81.502	1.00	17.45
ATOM	3377	CA	CYS	B	145	47.594	29.207	81.718	1.00	13.43
ATOM	3378	CB	CYS	B	145	47.853	30.629	82.221	1.00	20.41
ATOM	3379	SG	CYS	B	145	47.629	31.851	80.891	1.00	23.38

**FIGURE 167**

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ATOM	3380	C	CYS	B	145	48.151	28.198	82.726	1.00	13.94
ATOM	3381	O	CYS	B	145	49.278	27.738	82.611	1.00	14.73
ATOM	3382	N	VAL	B	146	47.320	27.912	83.716	1.00	19.10
ATOM	3383	CA	VAL	B	146	47.674	26.994	84.798	1.00	21.25
ATOM	3384	CB	VAL	B	146	48.116	27.718	86.081	1.00	23.42
ATOM	3385	CG1	VAL	B	146	48.515	26.713	87.163	1.00	17.61
ATOM	3386	CG2	VAL	B	146	49.270	28.661	85.793	1.00	20.80
ATOM	3387	C	VAL	B	146	46.449	26.145	85.081	1.00	19.88
ATOM	3388	O	VAL	B	146	45.355	26.702	85.219	1.00	21.18
ATOM	3389	N	GLU	B	147	46.590	24.824	85.132	1.00	18.68
ATOM	3390	CA	GLU	B	147	45.398	24.012	85.422	1.00	18.49
ATOM	3391	CB	GLU	B	147	45.048	23.119	84.225	1.00	21.59
ATOM	3392	CG	GLU	B	147	44.374	23.905	83.116	1.00	23.43
ATOM	3393	CD	GLU	B	147	44.162	23.234	81.785	1.00	38.61
ATOM	3394	OE1	GLU	B	147	44.493	22.040	81.618	1.00	34.89
ATOM	3395	OE2	GLU	B	147	43.636	23.926	80.870	1.00	30.39
ATOM	3396	C	GLU	B	147	45.675	23.194	86.675	1.00	22.32
ATOM	3397	O	GLU	B	147	46.589	22.361	86.632	1.00	27.28
ATOM	3398	N	LYS	B	148	44.956	23.423	87.767	1.00	30.22
ATOM	3399	CA	LYS	B	148	45.226	22.630	88.976	1.00	32.97
ATOM	3400	CB	LYS	B	148	44.850	21.169	88.720	1.00	39.67
ATOM	3401	CG	LYS	B	148	43.346	20.947	88.598	1.00	44.29
ATOM	3402	CD	LYS	B	148	43.029	19.958	87.489	1.00	44.33
ATOM	3403	CE	LYS	B	148	41.527	19.780	87.325	1.00	49.46
ATOM	3404	NZ	LYS	B	148	41.028	20.351	86.043	1.00	61.43
ATOM	3405	C	LYS	B	148	46.681	22.757	89.395	1.00	28.17
ATOM	3406	O	LYS	B	148	47.401	21.830	89.761	1.00	28.44
ATOM	3407	N	GLY	B	149	47.163	24.001	89.303	1.00	19.82
ATOM	3408	CA	GLY	B	149	48.533	24.259	89.642	1.00	14.78
ATOM	3409	C	GLY	B	149	49.550	23.826	88.611	1.00	25.79
ATOM	3410	O	GLY	B	149	50.723	24.180	88.775	1.00	24.43
ATOM	3411	N	ARG	B	150	49.192	23.090	87.559	1.00	24.49
ATOM	3412	CA	ARG	B	150	50.193	22.668	86.579	1.00	21.93
ATOM	3413	CB	ARG	B	150	49.803	21.317	85.965	1.00	24.07
ATOM	3414	CG	ARG	B	150	49.775	20.179	86.980	1.00	28.42
ATOM	3415	CD	ARG	B	150	49.328	18.870	86.341	1.00	38.83
ATOM	3416	NE	ARG	B	150	48.126	18.371	87.014	1.00	49.80
ATOM	3417	CZ	ARG	B	150	46.904	18.817	86.738	1.00	54.11
ATOM	3418	NH1	ARG	B	150	46.718	19.752	85.811	1.00	48.84
ATOM	3419	NH2	ARG	B	150	45.865	18.319	87.394	1.00	45.18
ATOM	3420	C	ARG	B	150	50.346	23.708	85.467	1.00	15.49
ATOM	3421	O	ARG	B	150	49.325	24.039	84.872	1.00	23.49
ATOM	3422	N	VAL	B	151	51.543	24.202	85.215	1.00	18.22
ATOM	3423	CA	VAL	B	151	51.760	25.224	84.188	1.00	20.43
ATOM	3424	CB	VAL	B	151	53.188	25.789	84.283	1.00	27.81
ATOM	3425	CG1	VAL	B	151	53.440	26.853	83.216	1.00	35.66
ATOM	3426	CG2	VAL	B	151	53.439	26.378	85.667	1.00	24.07
ATOM	3427	C	VAL	B	151	51.513	24.667	82.790	1.00	23.20
ATOM	3428	O	VAL	B	151	52.059	23.622	82.440	1.00	19.63
ATOM	3429	N	LYS	B	152	50.707	25.370	82.006	1.00	24.64
ATOM	3430	CA	LYS	B	152	50.357	24.963	80.651	1.00	14.29
ATOM	3431	CB	LYS	B	152	48.860	24.691	80.517	1.00	10.40

**FIGURE 168**

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ATOM	3432	CG	LYS	B	152	48.253	23.776	81.578	1.00	17.03
ATOM	3433	CD	LYS	B	152	48.788	22.349	81.417	1.00	21.83
ATOM	3434	CE	LYS	B	152	47.958	21.386	82.264	1.00	22.06
ATOM	3435	NZ	LYS	B	152	48.298	19.972	81.959	1.00	36.68
ATOM	3436	C	LYS	B	152	50.754	26.040	79.644	1.00	24.64
ATOM	3437	O	LYS	B	152	51.009	25.763	78.468	1.00	18.65
ATOM	3438	N	CYS	B	153	50.803	27.314	80.047	1.00	11.48
ATOM	3439	CA	CYS	B	153	51.051	28.334	79.016	1.00	12.40
ATOM	3440	CB	CYS	B	153	49.804	28.484	78.135	1.00	12.34
ATOM	3441	SG	CYS	B	153	49.930	29.808	76.878	1.00	18.57
ATOM	3442	C	CYS	B	153	51.402	29.647	79.697	1.00	21.82
ATOM	3443	O	CYS	B	153	50.893	29.972	80.777	1.00	18.60
ATOM	3444	N	ASP	B	154	52.295	30.439	79.135	1.00	16.73
ATOM	3445	CA	ASP	B	154	52.588	31.722	79.807	1.00	16.66
ATOM	3446	CB	ASP	B	154	53.893	32.268	79.253	1.00	17.86
ATOM	3447	CG	ASP	B	154	54.346	33.504	80.006	1.00	28.26
ATOM	3448	OD1	ASP	B	154	54.311	34.561	79.347	1.00	32.47
ATOM	3449	OD2	ASP	B	154	54.693	33.396	81.199	1.00	26.75
ATOM	3450	C	ASP	B	154	51.417	32.676	79.644	1.00	19.16
ATOM	3451	O	ASP	B	154	50.633	32.566	78.696	1.00	19.76
ATOM	3452	N	HIS	B	155	51.254	33.609	80.583	1.00	18.37
ATOM	3453	CA	HIS	B	155	50.258	34.666	80.434	1.00	19.93
ATOM	3454	CB	HIS	B	155	49.911	35.303	81.787	1.00	13.95
ATOM	3455	CG	HIS	B	155	48.744	36.236	81.679	1.00	17.38
ATOM	3456	ND1	HIS	B	155	47.470	35.952	82.137	1.00	21.90
ATOM	3457	CE1	HIS	B	155	46.665	36.975	81.889	1.00	23.51
ATOM	3458	NE2	HIS	B	155	47.376	37.912	81.278	1.00	25.28
ATOM	3459	CD2	HIS	B	155	48.669	37.476	81.135	1.00	15.32
ATOM	3460	C	HIS	B	155	50.871	35.672	79.468	1.00	23.82
ATOM	3461	O	HIS	B	155	51.437	36.664	79.913	1.00	26.73
ATOM	3462	N	TYR	B	156	50.820	35.411	78.158	1.00	12.99
ATOM	3463	CA	TYR	B	156	51.669	36.173	77.258	1.00	17.64
ATOM	3464	CB	TYR	B	156	51.996	35.306	76.025	1.00	17.34
ATOM	3465	CG	TYR	B	156	50.780	34.829	75.270	1.00	14.33
ATOM	3466	CD1	TYR	B	156	50.206	35.541	74.233	1.00	9.88
ATOM	3467	CE1	TYR	B	156	49.095	35.057	73.566	1.00	17.37
ATOM	3468	CZ	TYR	B	156	48.537	33.843	73.912	1.00	16.91
ATOM	3469	OH	TYR	B	156	47.427	33.352	73.252	1.00	16.15
ATOM	3470	CE2	TYR	B	156	49.095	33.107	74.941	1.00	16.17
ATOM	3471	CD2	TYR	B	156	50.202	33.597	75.603	1.00	19.17
ATOM	3472	C	TYR	B	156	51.099	37.488	76.740	1.00	15.11
ATOM	3473	O	TYR	B	156	51.731	38.066	75.839	1.00	17.69
ATOM	3474	N	TRP	B	157	49.973	37.913	77.257	1.00	20.44
ATOM	3475	CA	TRP	B	157	49.317	39.185	76.948	1.00	22.51
ATOM	3476	CB	TRP	B	157	47.941	38.916	76.355	1.00	19.87
ATOM	3477	CG	TRP	B	157	46.985	38.298	77.330	1.00	19.72
ATOM	3478	CD1	TRP	B	157	46.114	38.986	78.133	1.00	21.12
ATOM	3479	NE1	TRP	B	157	45.393	38.102	78.898	1.00	21.03
ATOM	3480	CE2	TRP	B	157	45.787	36.823	78.596	1.00	22.01
ATOM	3481	CD2	TRP	B	157	46.788	36.910	77.612	1.00	21.27
ATOM	3482	CE3	TRP	B	157	47.353	35.722	77.140	1.00	15.87
ATOM	3483	CZ3	TRP	B	157	46.911	34.519	77.650	1.00	21.70

**FIGURE 169**

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ATOM	3484	CH2	TRP	B	157	45.909	34.468	78.629	1.00	22.88
ATOM	3485	CZ2	TRP	B	157	45.339	35.614	79.114	1.00	25.47
ATOM	3486	C	TRP	B	157	49.245	40.010	78.227	1.00	31.95
ATOM	3487	O	TRP	B	157	49.455	39.413	79.292	1.00	26.71
ATOM	3488	N	PRO	B	158	48.992	41.310	78.208	1.00	31.73
ATOM	3489	CA	PRO	B	158	49.055	42.131	79.423	1.00	27.67
ATOM	3490	CB	PRO	B	158	48.882	43.564	78.893	1.00	33.72
ATOM	3491	CG	PRO	B	158	49.181	43.472	77.432	1.00	33.76
ATOM	3492	CD	PRO	B	158	48.645	42.119	77.021	1.00	35.38
ATOM	3493	C	PRO	B	158	47.944	41.845	80.427	1.00	34.39
ATOM	3494	O	PRO	B	158	46.852	41.408	80.064	1.00	43.08
ATOM	3495	N	ALA	B	159	48.213	42.100	81.706	1.00	42.13
ATOM	3496	CA	ALA	B	159	47.276	41.840	82.796	1.00	36.27
ATOM	3497	CB	ALA	B	159	47.929	42.175	84.134	1.00	24.16
ATOM	3498	C	ALA	B	159	45.986	42.624	82.659	1.00	36.43
ATOM	3499	O	ALA	B	159	44.871	42.160	82.889	1.00	36.44
ATOM	3500	N	ASP	B	160	46.124	43.889	82.264	1.00	30.03
ATOM	3501	CA	ASP	B	160	44.940	44.748	82.237	1.00	35.84
ATOM	3502	CB	ASP	B	160	44.838	45.506	83.566	1.00	38.86
ATOM	3503	CG	ASP	B	160	46.127	46.268	83.835	1.00	40.84
ATOM	3504	OD1	ASP	B	160	46.496	47.091	82.969	1.00	44.84
ATOM	3505	OD2	ASP	B	160	46.760	46.038	84.883	1.00	45.44
ATOM	3506	C	ASP	B	160	45.033	45.682	81.045	1.00	34.03
ATOM	3507	O	ASP	B	160	45.484	45.251	79.981	1.00	35.16
ATOM	3508	N	GLN	B	161	44.646	46.947	81.174	1.00	31.44
ATOM	3509	CA	GLN	B	161	44.665	47.795	79.971	1.00	37.31
ATOM	3510	CB	GLN	B	161	43.443	48.713	79.958	1.00	48.77
ATOM	3511	CG	GLN	B	161	42.113	48.002	80.141	1.00	63.63
ATOM	3512	CD	GLN	B	161	41.545	47.351	78.898	1.00	66.46
ATOM	3513	OE1	GLN	B	161	41.702	47.819	77.769	1.00	73.28
ATOM	3514	NE2	GLN	B	161	40.851	46.230	79.085	1.00	44.47
ATOM	3515	C	GLN	B	161	45.959	48.574	79.868	1.00	30.80
ATOM	3516	O	GLN	B	161	46.164	49.414	78.991	1.00	30.61
ATOM	3517	N	ASP	B	162	46.927	48.325	80.752	1.00	31.03
ATOM	3518	CA	ASP	B	162	48.201	49.018	80.507	1.00	39.93
ATOM	3519	CB	ASP	B	162	49.077	49.016	81.756	1.00	50.93
ATOM	3520	CG	ASP	B	162	49.441	47.616	82.213	1.00	68.18
ATOM	3521	OD1	ASP	B	162	48.998	46.637	81.574	1.00	86.94
ATOM	3522	OD2	ASP	B	162	50.176	47.492	83.218	1.00	99.89
ATOM	3523	C	ASP	B	162	48.904	48.357	79.324	1.00	39.36
ATOM	3524	O	ASP	B	162	48.627	47.197	79.014	1.00	54.50
ATOM	3525	N	SER	B	163	49.796	49.081	78.659	1.00	29.38
ATOM	3526	CA	SER	B	163	50.522	48.555	77.510	1.00	24.30
ATOM	3527	CB	SER	B	163	50.671	49.686	76.476	1.00	24.27
ATOM	3528	OG	SER	B	163	51.323	50.772	77.118	1.00	33.50
ATOM	3529	C	SER	B	163	51.887	47.999	77.867	1.00	27.40
ATOM	3530	O	SER	B	163	52.500	48.320	78.886	1.00	30.35
ATOM	3531	N	LEU	B	164	52.412	47.131	77.004	1.00	22.69
ATOM	3532	CA	LEU	B	164	53.721	46.549	77.197	1.00	23.41
ATOM	3533	CB	LEU	B	164	53.666	45.205	77.926	1.00	32.71
ATOM	3534	CG	LEU	B	164	53.276	45.168	79.401	1.00	41.07
ATOM	3535	CD1	LEU	B	164	52.777	43.780	79.796	1.00	39.52

**FIGURE 170**

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ATOM	3536	CD2	LEU	B	164	54.432	45.565	80.311	1.00	34.59
ATOM	3537	C	LEU	B	164	54.400	46.334	75.839	1.00	19.77
ATOM	3538	O	LEU	B	164	53.727	46.182	74.820	1.00	25.31
ATOM	3539	N	TYR	B	165	55.717	46.327	75.881	1.00	22.94
ATOM	3540	CA	TYR	B	165	56.537	45.961	74.752	1.00	22.36
ATOM	3541	CB	TYR	B	165	57.888	46.643	74.765	1.00	18.40
ATOM	3542	CG	TYR	B	165	57.974	48.100	74.409	1.00	29.19
ATOM	3543	CD1	TYR	B	165	57.965	49.067	75.410	1.00	33.88
ATOM	3544	CE1	TYR	B	165	58.049	50.410	75.103	1.00	30.20
ATOM	3545	CZ	TYR	B	165	58.150	50.803	73.792	1.00	29.95
ATOM	3546	OH	TYR	B	165	58.232	52.144	73.492	1.00	23.81
ATOM	3547	CE2	TYR	B	165	58.167	49.866	72.780	1.00	32.37
ATOM	3548	CD2	TYR	B	165	58.082	48.525	73.091	1.00	29.59
ATOM	3549	C	TYR	B	165	56.812	44.448	74.759	1.00	28.65
ATOM	3550	O	TYR	B	165	57.094	43.855	75.793	1.00	27.24
ATOM	3551	N	TYR	B	166	56.752	43.893	73.562	1.00	26.38
ATOM	3552	CA	TYR	B	166	57.169	42.527	73.276	1.00	23.90
ATOM	3553	CB	TYR	B	166	55.962	41.650	73.008	1.00	20.88
ATOM	3554	CG	TYR	B	166	54.973	41.508	74.140	1.00	22.61
ATOM	3555	CD1	TYR	B	166	55.113	40.482	75.076	1.00	21.82
ATOM	3556	CE1	TYR	B	166	54.199	40.362	76.101	1.00	17.08
ATOM	3557	CZ	TYR	B	166	53.148	41.235	76.224	1.00	19.26
ATOM	3558	OH	TYR	B	166	52.255	41.100	77.248	1.00	19.82
ATOM	3559	CE2	TYR	B	166	52.976	42.262	75.313	1.00	22.80
ATOM	3560	CD2	TYR	B	166	53.901	42.367	74.291	1.00	23.91
ATOM	3561	C	TYR	B	166	58.105	42.598	72.069	1.00	15.01
ATOM	3562	O	TYR	B	166	57.616	42.676	70.943	1.00	23.20
ATOM	3563	N	GLY	B	167	59.399	42.596	72.328	1.00	23.31
ATOM	3564	CA	GLY	B	167	60.399	42.819	71.301	1.00	30.99
ATOM	3565	C	GLY	B	167	60.278	44.237	70.754	1.00	32.92
ATOM	3566	O	GLY	B	167	60.252	45.223	71.498	1.00	31.28
ATOM	3567	N	ASP	B	168	60.195	44.348	69.432	1.00	24.47
ATOM	3568	CA	ASP	B	168	60.036	45.656	68.810	1.00	30.37
ATOM	3569	CB	ASP	B	168	60.661	45.694	67.414	1.00	35.10
ATOM	3570	CG	ASP	B	168	62.142	45.378	67.460	1.00	42.09
ATOM	3571	OD1	ASP	B	168	62.723	45.550	68.550	1.00	47.47
ATOM	3572	OD2	ASP	B	168	62.684	44.966	66.414	1.00	47.31
ATOM	3573	C	ASP	B	168	58.570	46.022	68.666	1.00	29.02
ATOM	3574	O	ASP	B	168	58.240	46.976	67.967	1.00	37.58
ATOM	3575	N	LEU	B	169	57.674	45.259	69.296	1.00	24.88
ATOM	3576	CA	LEU	B	169	56.265	45.583	69.132	1.00	19.15
ATOM	3577	CB	LEU	B	169	55.436	44.377	68.702	1.00	29.37
ATOM	3578	CG	LEU	B	169	55.736	43.693	67.375	1.00	33.58
ATOM	3579	CD1	LEU	B	169	55.206	42.262	67.367	1.00	22.11
ATOM	3580	CD2	LEU	B	169	55.145	44.492	66.220	1.00	40.24
ATOM	3581	C	LEU	B	169	55.705	46.081	70.461	1.00	18.08
ATOM	3582	O	LEU	B	169	56.260	45.744	71.498	1.00	30.36
ATOM	3583	N	ILE	B	170	54.625	46.828	70.374	1.00	23.85
ATOM	3584	CA	ILE	B	170	53.900	47.229	71.571	1.00	29.93
ATOM	3585	CB	ILE	B	170	53.947	48.744	71.817	1.00	31.71
ATOM	3586	CG1	ILE	B	170	53.316	49.167	73.144	1.00	36.34
ATOM	3587	CD1	ILE	B	170	54.269	49.867	74.084	1.00	48.77

**FIGURE 171**

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ATOM	3588	CG2	ILE	B	170	53.304	49.482	70.662	1.00	37.89
ATOM	3589	C	ILE	B	170	52.460	46.757	71.433	1.00	30.07
ATOM	3590	O	ILE	B	170	51.841	46.853	70.374	1.00	29.12
ATOM	3591	N	LEU	B	171	51.955	46.223	72.535	1.00	25.46
ATOM	3592	CA	LEU	B	171	50.604	45.701	72.589	1.00	21.46
ATOM	3593	CB	LEU	B	171	50.612	44.200	72.895	1.00	29.41
ATOM	3594	CG	LEU	B	171	50.226	43.287	71.727	1.00	39.01
ATOM	3595	CD1	LEU	B	171	51.391	43.140	70.758	1.00	43.97
ATOM	3596	CD2	LEU	B	171	49.774	41.940	72.246	1.00	47.22
ATOM	3597	C	LEU	B	171	49.805	46.423	73.668	1.00	25.20
ATOM	3598	O	LEU	B	171	50.337	46.746	74.734	1.00	26.76
ATOM	3599	N	GLN	B	172	48.536	46.660	73.377	1.00	22.79
ATOM	3600	CA	GLN	B	172	47.630	47.237	74.358	1.00	37.17
ATOM	3601	CB	GLN	B	172	47.376	48.734	74.126	1.00	40.40
ATOM	3602	CG	GLN	B	172	46.844	49.424	75.378	1.00	50.87
ATOM	3603	CD	GLN	B	172	46.684	50.924	75.272	1.00	51.56
ATOM	3604	OE1	GLN	B	172	46.258	51.440	74.240	1.00	46.34
ATOM	3605	NE2	GLN	B	172	47.013	51.651	76.339	1.00	33.78
ATOM	3606	C	GLN	B	172	46.300	46.486	74.342	1.00	38.38
ATOM	3607	O	GLN	B	172	45.611	46.417	73.322	1.00	24.25
ATOM	3608	N	MET	B	173	45.967	45.927	75.511	1.00	30.63
ATOM	3609	CA	MET	B	173	44.650	45.325	75.643	1.00	25.80
ATOM	3610	CB	MET	B	173	44.534	44.392	76.853	1.00	20.42
ATOM	3611	CG	MET	B	173	43.257	43.557	76.754	1.00	26.50
ATOM	3612	SD	MET	B	173	43.176	42.237	77.997	1.00	36.50
ATOM	3613	CE	MET	B	173	42.811	43.236	79.442	1.00	44.10
ATOM	3614	C	MET	B	173	43.598	46.437	75.729	1.00	38.57
ATOM	3615	O	MET	B	173	43.630	47.252	76.654	1.00	49.37
ATOM	3616	N	LEU	B	174	42.707	46.443	74.754	1.00	32.34
ATOM	3617	CA	LEU	B	174	41.663	47.434	74.587	1.00	32.40
ATOM	3618	CB	LEU	B	174	41.355	47.609	73.093	1.00	27.63
ATOM	3619	CG	LEU	B	174	41.749	48.955	72.490	1.00	42.29
ATOM	3620	CD1	LEU	B	174	42.587	48.766	71.239	1.00	52.03
ATOM	3621	CD2	LEU	B	174	40.490	49.769	72.215	1.00	46.08
ATOM	3622	C	LEU	B	174	40.384	47.037	75.305	1.00	41.65
ATOM	3623	O	LEU	B	174	39.616	47.862	75.795	1.00	43.69
ATOM	3624	N	SER	B	175	40.165	45.721	75.328	1.00	28.31
ATOM	3625	CA	SER	B	175	38.911	45.204	75.845	1.00	21.60
ATOM	3626	CB	SER	B	175	37.807	45.343	74.801	1.00	21.97
ATOM	3627	OG	SER	B	175	37.672	44.133	74.073	1.00	61.12
ATOM	3628	C	SER	B	175	39.059	43.732	76.238	1.00	31.76
ATOM	3629	O	SER	B	175	39.831	43.018	75.598	1.00	21.28
ATOM	3630	N	GLU	B	176	38.305	43.370	77.266	1.00	32.04
ATOM	3631	CA	GLU	B	176	38.286	42.031	77.838	1.00	33.85
ATOM	3632	CB	GLU	B	176	39.330	41.927	78.969	1.00	27.59
ATOM	3633	CG	GLU	B	176	39.308	40.570	79.654	1.00	29.03
ATOM	3634	CD	GLU	B	176	40.283	40.373	80.782	1.00	40.65
ATOM	3635	OE1	GLU	B	176	39.972	40.727	81.940	1.00	49.86
ATOM	3636	OE2	GLU	B	176	41.389	39.838	80.534	1.00	40.12
ATOM	3637	C	GLU	B	176	36.889	41.675	78.328	1.00	39.65
ATOM	3638	O	GLU	B	176	36.400	42.226	79.318	1.00	44.09
ATOM	3639	N	SER	B	177	36.195	40.757	77.654	1.00	38.39

**FIGURE 172**



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ATOM	3640	CA	SER B 177	34.858	40.361	78.111	1.00	40.70
ATOM	3641	CB	SER B 177	33.787	40.649	77.069	1.00	44.75
ATOM	3642	OG	SER B 177	33.979	39.939	75.863	1.00	61.24
ATOM	3643	C	SER B 177	34.856	38.884	78.518	1.00	38.46
ATOM	3644	O	SER B 177	35.006	37.984	77.695	1.00	25.34
ATOM	3645	N	VAL B 178	34.692	38.696	79.815	1.00	35.33
ATOM	3646	CA	VAL B 178	34.780	37.440	80.534	1.00	44.36
ATOM	3647	CB	VAL B 178	35.355	37.668	81.947	1.00	47.13
ATOM	3648	CG1	VAL B 178	35.862	36.376	82.570	1.00	47.45
ATOM	3649	CG2	VAL B 178	36.477	38.698	81.898	1.00	51.70
ATOM	3650	C	VAL B 178	33.419	36.763	80.621	1.00	45.86
ATOM	3651	O	VAL B 178	32.512	37.204	81.327	1.00	51.44
ATOM	3652	N	LEU B 179	33.283	35.674	79.872	1.00	37.27
ATOM	3653	CA	LEU B 179	32.036	34.908	79.851	1.00	34.97
ATOM	3654	CB	LEU B 179	31.628	34.661	78.400	1.00	37.51
ATOM	3655	CG	LEU B 179	30.834	35.785	77.730	1.00	43.44
ATOM	3656	CD1	LEU B 179	31.470	37.140	77.989	1.00	54.18
ATOM	3657	CD2	LEU B 179	30.704	35.528	76.237	1.00	54.36
ATOM	3658	C	LEU B 179	32.193	33.620	80.645	1.00	34.28
ATOM	3659	O	LEU B 179	33.309	33.220	81.010	1.00	36.89
ATOM	3660	N	PRO B 180	31.101	32.937	80.970	1.00	45.49
ATOM	3661	CA	PRO B 180	31.209	31.705	81.756	1.00	42.82
ATOM	3662	CB	PRO B 180	29.774	31.148	81.733	1.00	47.75
ATOM	3663	CG	PRO B 180	28.932	32.376	81.617	1.00	51.41
ATOM	3664	CD	PRO B 180	29.695	33.258	80.665	1.00	53.24
ATOM	3665	C	PRO B 180	32.153	30.666	81.176	1.00	31.68
ATOM	3666	O	PRO B 180	32.821	29.985	81.963	1.00	42.99
ATOM	3667	N	GLU B 181	32.242	30.482	79.858	1.00	28.10
ATOM	3668	CA	GLU B 181	33.166	29.435	79.396	1.00	30.70
ATOM	3669	CB	GLU B 181	32.420	28.305	78.697	1.00	24.19
ATOM	3670	CG	GLU B 181	31.130	27.923	79.409	1.00	35.82
ATOM	3671	CD	GLU B 181	30.054	27.533	78.413	1.00	40.31
ATOM	3672	OE1	GLU B 181	29.358	28.440	77.912	1.00	49.12
ATOM	3673	OE2	GLU B 181	29.924	26.323	78.142	1.00	45.80
ATOM	3674	C	GLU B 181	34.229	29.976	78.447	1.00	33.02
ATOM	3675	O	GLU B 181	35.127	29.240	78.043	1.00	34.02
ATOM	3676	N	TRP B 182	34.139	31.254	78.085	1.00	26.28
ATOM	3677	CA	TRP B 182	35.215	31.807	77.263	1.00	25.54
ATOM	3678	CB	TRP B 182	35.049	31.542	75.780	1.00	25.17
ATOM	3679	CG	TRP B 182	33.799	31.961	75.090	1.00	23.98
ATOM	3680	CD1	TRP B 182	33.495	33.162	74.507	1.00	27.11
ATOM	3681	NE1	TRP B 182	32.228	33.126	73.975	1.00	26.38
ATOM	3682	CE2	TRP B 182	31.689	31.888	74.210	1.00	29.12
ATOM	3683	CD2	TRP B 182	32.649	31.127	74.905	1.00	25.63
ATOM	3684	CE3	TRP B 182	32.372	29.806	75.280	1.00	26.46
ATOM	3685	CZ3	TRP B 182	31.130	29.299	74.938	1.00	31.22
ATOM	3686	CH2	TRP B 182	30.191	30.079	74.244	1.00	33.39
ATOM	3687	CZ2	TRP B 182	30.441	31.371	73.869	1.00	31.20
ATOM	3688	C	TRP B 182	35.337	33.308	77.529	1.00	27.72
ATOM	3689	O	TRP B 182	34.418	33.935	78.055	1.00	30.24
ATOM	3690	N	THR B 183	36.493	33.818	77.150	1.00	24.75
ATOM	3691	CA	THR B 183	36.809	35.234	77.261	1.00	29.67

**FIGURE 173**

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ATOM	3692	CB	THR	B	183	37.897	35.481	78.320	1.00	36.72
ATOM	3693	OG1	THR	B	183	37.419	35.055	79.606	1.00	30.73
ATOM	3694	CG2	THR	B	183	38.218	36.961	78.455	1.00	25.96
ATOM	3695	C	THR	B	183	37.263	35.756	75.903	1.00	23.78
ATOM	3696	O	THR	B	183	38.157	35.191	75.276	1.00	16.05
ATOM	3697	N	ILE	B	184	36.649	36.838	75.455	1.00	21.97
ATOM	3698	CA	ILE	B	184	37.110	37.497	74.227	1.00	26.63
ATOM	3699	CB	ILE	B	184	35.918	37.735	73.288	1.00	30.23
ATOM	3700	CG1	ILE	B	184	35.305	36.415	72.797	1.00	29.99
ATOM	3701	CD1	ILE	B	184	33.881	36.539	72.305	1.00	36.01
ATOM	3702	CG2	ILE	B	184	36.293	38.648	72.133	1.00	24.86
ATOM	3703	C	ILE	B	184	37.843	38.782	74.573	1.00	26.33
ATOM	3704	O	ILE	B	184	37.296	39.625	75.285	1.00	27.53
ATOM	3705	N	ARG	B	185	39.072	38.936	74.095	1.00	21.56
ATOM	3706	CA	ARG	B	185	39.876	40.127	74.341	1.00	21.72
ATOM	3707	CB	ARG	B	185	41.151	39.785	75.111	1.00	18.90
ATOM	3708	CG	ARG	B	185	40.884	39.061	76.431	1.00	20.33
ATOM	3709	CD	ARG	B	185	42.207	38.540	76.980	1.00	31.19
ATOM	3710	NE	ARG	B	185	42.119	38.235	78.404	1.00	29.95
ATOM	3711	CZ	ARG	B	185	41.905	37.012	78.867	1.00	30.90
ATOM	3712	NH1	ARG	B	185	41.770	36.026	77.993	1.00	28.15
ATOM	3713	NH2	ARG	B	185	41.831	36.768	80.165	1.00	26.93
ATOM	3714	C	ARG	B	185	40.246	40.824	73.038	1.00	24.49
ATOM	3715	O	ARG	B	185	40.342	40.197	71.990	1.00	22.11
ATOM	3716	N	GLU	B	186	40.440	42.137	73.098	1.00	23.85
ATOM	3717	CA	GLU	B	186	40.858	42.852	71.895	1.00	23.99
ATOM	3718	CB	GLU	B	186	39.831	43.906	71.499	1.00	32.77
ATOM	3719	CG	GLU	B	186	38.961	43.556	70.303	1.00	49.41
ATOM	3720	CD	GLU	B	186	38.376	44.815	69.677	1.00	57.85
ATOM	3721	OE1	GLU	B	186	38.831	45.212	68.585	1.00	58.65
ATOM	3722	OE2	GLU	B	186	37.465	45.405	70.295	1.00	46.66
ATOM	3723	C	GLU	B	186	42.215	43.486	72.141	1.00	20.03
ATOM	3724	O	GLU	B	186	42.426	44.138	73.165	1.00	28.24
ATOM	3725	N	PHE	B	187	43.151	43.295	71.214	1.00	19.91
ATOM	3726	CA	PHE	B	187	44.452	43.922	71.357	1.00	17.69
ATOM	3727	CB	PHE	B	187	45.562	42.872	71.461	1.00	24.10
ATOM	3728	CG	PHE	B	187	45.394	41.859	72.581	1.00	26.73
ATOM	3729	CD1	PHE	B	187	45.114	40.535	72.294	1.00	32.91
ATOM	3730	CE1	PHE	B	187	44.967	39.593	73.304	1.00	27.10
ATOM	3731	CZ	PHE	B	187	45.089	39.989	74.620	1.00	21.98
ATOM	3732	CE2	PHE	B	187	45.369	41.308	74.928	1.00	27.08
ATOM	3733	CD2	PHE	B	187	45.539	42.233	73.907	1.00	28.39
ATOM	3734	C	PHE	B	187	44.809	44.842	70.189	1.00	27.70
ATOM	3735	O	PHE	B	187	44.560	44.562	69.019	1.00	24.34
ATOM	3736	N	LYS	B	188	45.446	45.953	70.538	1.00	29.92
ATOM	3737	CA	LYS	B	188	46.049	46.816	69.521	1.00	36.57
ATOM	3738	CB	LYS	B	188	45.678	48.276	69.774	1.00	42.75
ATOM	3739	CG	LYS	B	188	46.817	49.269	69.641	1.00	52.83
ATOM	3740	CD	LYS	B	188	46.349	50.713	69.711	1.00	58.55
ATOM	3741	CE	LYS	B	188	46.124	51.181	71.139	1.00	59.40
ATOM	3742	NZ	LYS	B	188	47.298	50.947	72.026	1.00	34.15
ATOM	3743	C	LYS	B	188	47.553	46.584	69.518	1.00	30.49

**FIGURE 174**

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ATOM	3744	O	LYS	B	188	48.240	46.624	70.539	1.00	22.92
ATOM	3745	N	ILE	B	189	48.136	46.304	68.350	1.00	24.79
ATOM	3746	CA	ILE	B	189	49.581	46.144	68.310	1.00	26.54
ATOM	3747	CB	ILE	B	189	49.992	44.714	67.933	1.00	29.28
ATOM	3748	CG1	ILE	B	189	51.461	44.597	67.523	1.00	33.98
ATOM	3749	CD1	ILE	B	189	51.848	43.205	67.067	1.00	52.63
ATOM	3750	CG2	ILE	B	189	49.079	44.160	66.853	1.00	36.95
ATOM	3751	C	ILE	B	189	50.175	47.152	67.321	1.00	26.97
ATOM	3752	O	ILE	B	189	49.539	47.447	66.312	1.00	25.84
ATOM	3753	N	CYS	B	190	51.344	47.657	67.659	1.00	32.86
ATOM	3754	CA	CYS	B	190	52.103	48.607	66.874	1.00	31.79
ATOM	3755	CB	CYS	B	190	52.243	49.961	67.577	1.00	35.55
ATOM	3756	SG	CYS	B	190	50.732	50.549	68.369	1.00	48.07
ATOM	3757	C	CYS	B	190	53.492	48.052	66.576	1.00	32.84
ATOM	3758	O	CYS	B	190	54.208	47.629	67.478	1.00	29.87
ATOM	3759	N	GLY	B	191	53.858	48.065	65.295	1.00	35.69
ATOM	3760	CA	GLY	B	191	55.151	47.519	64.910	1.00	46.05
ATOM	3761	C	GLY	B	191	55.917	48.502	64.045	1.00	51.49
ATOM	3762	O	GLY	B	191	55.540	49.677	64.025	1.00	57.04
ATOM	3763	N	GLU	B	192	56.944	48.025	63.353	1.00	53.82
ATOM	3764	CA	GLU	B	192	57.794	48.872	62.522	1.00	71.96
ATOM	3765	CB	GLU	B	192	58.741	48.013	61.681	1.00	79.49
ATOM	3766	CG	GLU	B	192	60.088	48.655	61.399	1.00	83.42
ATOM	3767	CD	GLU	B	192	61.126	48.395	62.472	1.00	90.04
ATOM	3768	OE1	GLU	B	192	60.759	48.211	63.654	1.00	98.44
ATOM	3769	OE2	GLU	B	192	62.329	48.371	62.130	1.00	89.90
ATOM	3770	C	GLU	B	192	56.969	49.797	61.622	1.00	79.73
ATOM	3771	O	GLU	B	192	57.359	50.943	61.396	1.00	81.84
ATOM	3772	N	GLU	B	193	55.861	49.274	61.154	1.00	88.39
ATOM	3773	CA	GLU	B	193	54.815	49.806	60.317	1.00	96.64
ATOM	3774	CB	GLU	B	193	54.932	51.307	60.055	1.00	98.26
ATOM	3775	CG	GLU	B	193	53.693	51.905	59.401	1.00	98.54
ATOM	3776	CD	GLU	B	193	53.567	53.404	59.562	1.00	97.01
ATOM	3777	OE1	GLU	B	193	52.688	53.853	60.336	1.00	83.43
ATOM	3778	OE2	GLU	B	193	54.330	54.154	58.911	1.00	98.66
ATOM	3779	C	GLU	B	193	54.823	49.030	58.991	1.00	102.76
ATOM	3780	O	GLU	B	193	54.656	49.612	57.926	1.00	116.30
ATOM	3781	N	GLN	B	194	55.029	47.726	59.137	1.00	102.86
ATOM	3782	CA	GLN	B	194	55.067	46.786	58.022	1.00	100.17
ATOM	3783	CB	GLN	B	194	55.150	45.351	58.544	1.00	94.78
ATOM	3784	CG	GLN	B	194	56.548	44.913	58.944	1.00	90.58
ATOM	3785	CD	GLN	B	194	57.076	45.627	60.173	1.00	89.36
ATOM	3786	OE1	GLN	B	194	56.393	46.444	60.792	1.00	75.86
ATOM	3787	NE2	GLN	B	194	58.314	45.317	60.547	1.00	97.42
ATOM	3788	C	GLN	B	194	53.848	46.979	57.135	1.00	100.06
ATOM	3789	O	GLN	B	194	53.618	48.060	56.588	1.00	106.59
ATOM	3790	N	LEU	B	195	53.019	45.946	56.971	1.00	96.75
ATOM	3791	CA	LEU	B	195	51.800	46.199	56.191	1.00	92.05
ATOM	3792	CB	LEU	B	195	51.420	44.991	55.342	1.00	85.63
ATOM	3793	CG	LEU	B	195	51.792	45.085	53.856	1.00	78.28
ATOM	3794	CD1	LEU	B	195	53.216	44.593	53.634	1.00	84.54
ATOM	3795	CD2	LEU	B	195	50.811	44.310	52.989	1.00	43.11

**FIGURE 175**

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ATOM	3796	C	LEU B 195	50.684	46.623	57.141	1.00	93.25
ATOM	3797	O	LEU B 195	49.499	46.559	56.823	1.00	106.23
ATOM	3798	N	ASP B 196	51.100	47.071	58.323	1.00	88.54
ATOM	3799	CA	ASP B 196	50.208	47.654	59.311	1.00	85.36
ATOM	3800	CB	ASP B 196	49.937	46.706	60.472	1.00	77.13
ATOM	3801	CG	ASP B 196	50.263	45.256	60.196	1.00	69.71
ATOM	3802	OD1	ASP B 196	51.435	44.924	59.922	1.00	56.81
ATOM	3803	OD2	ASP B 196	49.318	44.442	60.267	1.00	49.34
ATOM	3804	C	ASP B 196	50.795	48.962	59.853	1.00	86.61
ATOM	3805	O	ASP B 196	52.000	49.194	59.771	1.00	72.64
ATOM	3806	N	ALA B 197	49.924	49.797	60.398	1.00	87.67
ATOM	3807	CA	ALA B 197	50.287	51.051	61.042	1.00	89.69
ATOM	3808	CB	ALA B 197	50.135	52.222	60.096	1.00	83.48
ATOM	3809	C	ALA B 197	49.426	51.223	62.302	1.00	94.67
ATOM	3810	O	ALA B 197	49.317	52.318	62.843	1.00	100.04
ATOM	3811	N	HIS B 198	48.864	50.096	62.692	1.00	93.88
ATOM	3812	CA	HIS B 198	47.955	49.838	63.785	1.00	88.36
ATOM	3813	CB	HIS B 198	47.173	51.099	64.161	1.00	92.99
ATOM	3814	CG	HIS B 198	45.965	50.823	64.998	1.00	104.14
ATOM	3815	ND1	HIS B 198	46.045	50.478	66.329	1.00	108.50
ATOM	3816	CE1	HIS B 198	44.830	50.292	66.813	1.00	111.40
ATOM	3817	NE2	HIS B 198	43.960	50.506	65.840	1.00	112.45
ATOM	3818	CD2	HIS B 198	44.647	50.839	64.696	1.00	109.03
ATOM	3819	C	HIS B 198	46.988	48.711	63.416	1.00	81.60
ATOM	3820	O	HIS B 198	46.100	48.902	62.581	1.00	85.74
ATOM	3821	N	ARG B 199	47.151	47.537	64.020	1.00	68.93
ATOM	3822	CA	ARG B 199	46.278	46.398	63.754	1.00	51.46
ATOM	3823	CB	ARG B 199	47.089	45.192	63.265	1.00	49.03
ATOM	3824	CG	ARG B 199	46.204	44.080	62.716	1.00	46.46
ATOM	3825	CD	ARG B 199	46.953	42.775	62.585	1.00	51.43
ATOM	3826	NE	ARG B 199	48.202	42.873	61.850	1.00	58.26
ATOM	3827	CZ	ARG B 199	49.185	41.980	61.891	1.00	57.04
ATOM	3828	NH1	ARG B 199	49.068	40.896	62.649	1.00	28.91
ATOM	3829	NH2	ARG B 199	50.288	42.168	61.174	1.00	39.20
ATOM	3830	C	ARG B 199	45.464	46.004	64.987	1.00	33.01
ATOM	3831	O	ARG B 199	45.928	46.200	66.112	1.00	29.63
ATOM	3832	N	LEU B 200	44.268	45.459	64.781	1.00	24.89
ATOM	3833	CA	LEU B 200	43.422	45.004	65.880	1.00	27.88
ATOM	3834	CB	LEU B 200	42.010	45.570	65.783	1.00	34.27
ATOM	3835	CG	LEU B 200	41.523	46.288	67.047	1.00	42.11
ATOM	3836	CD1	LEU B 200	41.605	45.366	68.249	1.00	45.77
ATOM	3837	CD2	LEU B 200	42.333	47.553	67.292	1.00	51.38
ATOM	3838	C	LEU B 200	43.353	43.477	65.913	1.00	30.00
ATOM	3839	O	LEU B 200	42.871	42.868	64.959	1.00	32.82
ATOM	3840	N	ILE B 201	43.834	42.882	67.003	1.00	28.87
ATOM	3841	CA	ILE B 201	43.821	41.425	67.118	1.00	24.18
ATOM	3842	CB	ILE B 201	45.174	40.900	67.623	1.00	24.29
ATOM	3843	CG1	ILE B 201	46.350	41.222	66.696	1.00	28.49
ATOM	3844	CD1	ILE B 201	45.941	41.124	65.247	1.00	39.78
ATOM	3845	CG2	ILE B 201	45.105	39.401	67.873	1.00	25.71
ATOM	3846	C	ILE B 201	42.717	40.972	68.059	1.00	22.16
ATOM	3847	O	ILE B 201	42.640	41.494	69.168	1.00	23.92

FIGURE 176

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ATOM	3848	N	ARG	B	202	41.883	40.037	67.647	1.00	18.44
ATOM	3849	CA	ARG	B	202	40.849	39.447	68.478	1.00	22.50
ATOM	3850	CB	ARG	B	202	39.585	39.119	67.693	1.00	33.06
ATOM	3851	CG	ARG	B	202	38.305	39.726	68.233	1.00	52.62
ATOM	3852	CD	ARG	B	202	37.344	40.048	67.098	1.00	66.81
ATOM	3853	NE	ARG	B	202	36.728	41.358	67.260	1.00	75.75
ATOM	3854	CZ	ARG	B	202	37.372	42.512	67.362	1.00	85.03
ATOM	3855	NH1	ARG	B	202	38.698	42.553	67.322	1.00	98.51
ATOM	3856	NH2	ARG	B	202	36.677	43.635	67.506	1.00	92.03
ATOM	3857	C	ARG	B	202	41.359	38.141	69.099	1.00	26.96
ATOM	3858	O	ARG	B	202	41.955	37.319	68.410	1.00	18.58
ATOM	3859	N	HIS	B	203	41.120	37.977	70.384	1.00	28.22
ATOM	3860	CA	HIS	B	203	41.595	36.823	71.148	1.00	23.47
ATOM	3861	CB	HIS	B	203	42.637	37.287	72.150	1.00	18.39
ATOM	3862	CG	HIS	B	203	43.392	36.213	72.850	1.00	20.01
ATOM	3863	ND1	HIS	B	203	42.935	35.618	73.999	1.00	22.68
ATOM	3864	CE1	HIS	B	203	43.797	34.707	74.400	1.00	22.72
ATOM	3865	NE2	HIS	B	203	44.809	34.694	73.548	1.00	18.58
ATOM	3866	CD2	HIS	B	203	44.580	35.624	72.563	1.00	22.68
ATOM	3867	C	HIS	B	203	40.398	36.148	71.813	1.00	23.95
ATOM	3868	O	HIS	B	203	39.651	36.785	72.562	1.00	18.73
ATOM	3869	N	PHE	B	204	40.248	34.876	71.479	1.00	17.03
ATOM	3870	CA	PHE	B	204	39.161	33.994	71.840	1.00	16.70
ATOM	3871	CB	PHE	B	204	38.534	33.311	70.614	1.00	22.28
ATOM	3872	CG	PHE	B	204	38.026	34.329	69.604	1.00	24.33
ATOM	3873	CD1	PHE	B	204	38.876	34.813	68.622	1.00	22.40
ATOM	3874	CE1	PHE	B	204	38.411	35.764	67.735	1.00	18.80
ATOM	3875	CZ	PHE	B	204	37.103	36.205	67.847	1.00	19.32
ATOM	3876	CE2	PHE	B	204	36.244	35.727	68.811	1.00	25.22
ATOM	3877	CD2	PHE	B	204	36.716	34.768	69.694	1.00	26.02
ATOM	3878	C	PHE	B	204	39.702	32.924	72.788	1.00	22.01
ATOM	3879	O	PHE	B	204	40.366	31.995	72.324	1.00	24.15
ATOM	3880	N	HIS	B	205	39.416	33.083	74.068	1.00	17.87
ATOM	3881	CA	HIS	B	205	40.000	32.212	75.077	1.00	18.30
ATOM	3882	CB	HIS	B	205	40.620	33.068	76.193	1.00	17.58
ATOM	3883	CG	HIS	B	205	41.469	32.282	77.137	1.00	20.30
ATOM	3884	ND1	HIS	B	205	41.954	32.812	78.310	1.00	22.02
ATOM	3885	CE1	HIS	B	205	42.670	31.902	78.946	1.00	21.93
ATOM	3886	NE2	HIS	B	205	42.663	30.786	78.227	1.00	22.68
ATOM	3887	CD2	HIS	B	205	41.915	31.001	77.092	1.00	15.40
ATOM	3888	C	HIS	B	205	38.958	31.270	75.658	1.00	23.56
ATOM	3889	O	HIS	B	205	38.102	31.697	76.438	1.00	19.47
ATOM	3890	N	TYR	B	206	39.032	29.996	75.287	1.00	18.88
ATOM	3891	CA	TYR	B	206	38.073	29.022	75.836	1.00	22.05
ATOM	3892	CB	TYR	B	206	37.855	27.895	74.846	1.00	20.72
ATOM	3893	CG	TYR	B	206	36.757	26.923	75.209	1.00	18.73
ATOM	3894	CD1	TYR	B	206	35.420	27.266	75.039	1.00	20.87
ATOM	3895	CE1	TYR	B	206	34.413	26.376	75.372	1.00	26.51
ATOM	3896	CZ	TYR	B	206	34.752	25.135	75.870	1.00	28.96
ATOM	3897	OH	TYR	B	206	33.753	24.244	76.205	1.00	33.83
ATOM	3898	CE2	TYR	B	206	36.067	24.773	76.049	1.00	30.27
ATOM	3899	CD2	TYR	B	206	37.073	25.671	75.719	1.00	28.39

**FIGURE 177**

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ATOM	3900	C	TYR	B	206	38.613	28.499	77.156	1.00	24.76
ATOM	3901	O	TYR	B	206	39.717	27.943	77.181	1.00	19.80
ATOM	3902	N	THR	B	207	37.887	28.679	78.261	1.00	20.66
ATOM	3903	CA	THR	B	207	38.554	28.426	79.533	1.00	20.59
ATOM	3904	CB	THR	B	207	38.343	29.630	80.477	1.00	23.62
ATOM	3905	OG1	THR	B	207	36.964	30.008	80.399	1.00	20.08
ATOM	3906	CG2	THR	B	207	39.198	30.803	80.014	1.00	30.98
ATOM	3907	C	THR	B	207	38.084	27.179	80.263	1.00	23.84
ATOM	3908	O	THR	B	207	38.498	26.972	81.414	1.00	22.22
ATOM	3909	N	VAL	B	208	37.254	26.345	79.643	1.00	23.82
ATOM	3910	CA	VAL	B	208	36.825	25.167	80.402	1.00	28.06
ATOM	3911	CB	VAL	B	208	35.322	25.266	80.749	1.00	27.30
ATOM	3912	CG1	VAL	B	208	35.074	26.517	81.590	1.00	32.43
ATOM	3913	CG2	VAL	B	208	34.465	25.241	79.494	1.00	27.40
ATOM	3914	C	VAL	B	208	37.116	23.851	79.698	1.00	30.84
ATOM	3915	O	VAL	B	208	36.320	22.909	79.773	1.00	35.95
ATOM	3916	N	TRP	B	209	38.255	23.743	79.031	1.00	26.26
ATOM	3917	CA	TRP	B	209	38.657	22.486	78.391	1.00	24.69
ATOM	3918	CB	TRP	B	209	38.976	22.685	76.918	1.00	30.19
ATOM	3919	CG	TRP	B	209	39.163	21.465	76.068	1.00	24.30
ATOM	3920	CD1	TRP	B	209	39.449	20.169	76.361	1.00	26.73
ATOM	3921	NE1	TRP	B	209	39.526	19.394	75.229	1.00	27.16
ATOM	3922	CE2	TRP	B	209	39.278	20.210	74.148	1.00	34.57
ATOM	3923	CD2	TRP	B	209	39.048	21.513	74.632	1.00	23.58
ATOM	3924	CE3	TRP	B	209	38.768	22.558	73.746	1.00	24.70
ATOM	3925	CZ3	TRP	B	209	38.731	22.256	72.395	1.00	35.51
ATOM	3926	CH2	TRP	B	209	38.964	20.951	71.930	1.00	33.08
ATOM	3927	CZ2	TRP	B	209	39.236	19.917	72.782	1.00	32.65
ATOM	3928	C	TRP	B	209	39.889	21.934	79.099	1.00	26.90
ATOM	3929	O	TRP	B	209	40.981	22.462	78.880	1.00	24.25
ATOM	3930	N	PRO	B	210	39.733	20.881	79.886	1.00	30.43
ATOM	3931	CA	PRO	B	210	40.872	20.308	80.611	1.00	22.74
ATOM	3932	CB	PRO	B	210	40.241	19.228	81.492	1.00	26.14
ATOM	3933	CG	PRO	B	210	38.776	19.517	81.488	1.00	31.27
ATOM	3934	CD	PRO	B	210	38.486	20.136	80.147	1.00	27.01
ATOM	3935	C	PRO	B	210	41.871	19.648	79.668	1.00	22.10
ATOM	3936	O	PRO	B	210	41.475	19.064	78.662	1.00	34.64
ATOM	3937	N	ASP	B	211	43.153	19.724	80.001	1.00	15.18
ATOM	3938	CA	ASP	B	211	44.183	19.090	79.209	1.00	21.45
ATOM	3939	CB	ASP	B	211	45.565	19.247	79.849	1.00	28.68
ATOM	3940	CG	ASP	B	211	46.648	19.134	78.790	1.00	26.69
ATOM	3941	OD1	ASP	B	211	47.820	19.370	79.138	1.00	34.33
ATOM	3942	OD2	ASP	B	211	46.281	18.819	77.638	1.00	25.77
ATOM	3943	C	ASP	B	211	43.901	17.600	79.038	1.00	40.98
ATOM	3944	O	ASP	B	211	43.349	16.940	79.926	1.00	28.43
ATOM	3945	N	HIS	B	212	44.254	17.081	77.868	1.00	34.69
ATOM	3946	CA	HIS	B	212	44.020	15.705	77.459	1.00	29.07
ATOM	3947	CB	HIS	B	212	44.864	14.770	78.328	1.00	22.05
ATOM	3948	CG	HIS	B	212	46.266	15.247	78.527	1.00	23.98
ATOM	3949	ND1	HIS	B	212	47.183	15.323	77.504	1.00	29.39
ATOM	3950	CE1	HIS	B	212	48.329	15.777	77.969	1.00	33.66
ATOM	3951	NE2	HIS	B	212	48.187	15.996	79.268	1.00	32.42

**FIGURE 178**

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ATOM	3952	CD2	HIS	B	212	46.906	15.670	79.637	1.00	23.94
ATOM	3953	C	HIS	B	212	42.564	15.267	77.538	1.00	39.31
ATOM	3954	O	HIS	B	212	42.251	14.074	77.466	1.00	50.27
ATOM	3955	N	GLY	B	213	41.642	16.207	77.683	1.00	40.41
ATOM	3956	CA	GLY	B	213	40.245	15.925	77.912	1.00	30.96
ATOM	3957	C	GLY	B	213	39.401	16.580	76.835	1.00	33.95
ATOM	3958	O	GLY	B	213	39.938	17.004	75.817	1.00	33.78
ATOM	3959	N	VAL	B	214	38.120	16.610	77.144	1.00	31.79
ATOM	3960	CA	VAL	B	214	37.081	17.170	76.303	1.00	31.65
ATOM	3961	CB	VAL	B	214	36.238	16.035	75.701	1.00	35.28
ATOM	3962	CG1	VAL	B	214	37.120	15.151	74.832	1.00	45.38
ATOM	3963	CG2	VAL	B	214	35.582	15.230	76.815	1.00	24.44
ATOM	3964	C	VAL	B	214	36.205	18.070	77.150	1.00	36.18
ATOM	3965	O	VAL	B	214	36.097	17.826	78.358	1.00	35.44
ATOM	3966	N	PRO	B	215	35.582	19.094	76.597	1.00	32.79
ATOM	3967	CA	PRO	B	215	34.679	19.888	77.449	1.00	35.01
ATOM	3968	CB	PRO	B	215	34.113	20.923	76.488	1.00	32.92
ATOM	3969	CG	PRO	B	215	35.146	21.018	75.406	1.00	39.93
ATOM	3970	CD	PRO	B	215	35.654	19.604	75.225	1.00	33.73
ATOM	3971	C	PRO	B	215	33.574	18.999	78.031	1.00	40.15
ATOM	3972	O	PRO	B	215	33.366	17.872	77.581	1.00	31.33
ATOM	3973	N	GLU	B	216	32.896	19.532	79.028	1.00	39.88
ATOM	3974	CA	GLU	B	216	31.810	18.913	79.763	1.00	43.51
ATOM	3975	CB	GLU	B	216	31.406	19.850	80.906	1.00	52.27
ATOM	3976	CG	GLU	B	216	31.040	19.159	82.203	1.00	67.80
ATOM	3977	CD	GLU	B	216	31.677	19.781	83.429	1.00	77.24
ATOM	3978	OE1	GLU	B	216	31.550	19.193	84.527	1.00	81.69
ATOM	3979	OE2	GLU	B	216	32.302	20.857	83.300	1.00	89.24
ATOM	3980	C	GLU	B	216	30.617	18.606	78.864	1.00	40.84
ATOM	3981	O	GLU	B	216	30.010	17.536	78.967	1.00	53.80
ATOM	3982	N	THR	B	217	30.269	19.531	77.983	1.00	38.95
ATOM	3983	CA	THR	B	217	29.204	19.383	77.008	1.00	42.02
ATOM	3984	CB	THR	B	217	28.040	20.379	77.205	1.00	45.29
ATOM	3985	OG1	THR	B	217	28.483	21.708	76.887	1.00	35.12
ATOM	3986	CG2	THR	B	217	27.573	20.406	78.649	1.00	41.50
ATOM	3987	C	THR	B	217	29.708	19.600	75.580	1.00	41.46
ATOM	3988	O	THR	B	217	30.806	20.088	75.328	1.00	31.75
ATOM	3989	N	THR	B	218	28.852	19.241	74.631	1.00	44.21
ATOM	3990	CA	THR	B	218	29.157	19.469	73.222	1.00	46.58
ATOM	3991	CB	THR	B	218	28.428	18.436	72.347	1.00	50.20
ATOM	3992	OG1	THR	B	218	27.030	18.755	72.322	1.00	60.14
ATOM	3993	CG2	THR	B	218	28.539	17.047	72.953	1.00	48.45
ATOM	3994	C	THR	B	218	28.751	20.877	72.807	1.00	39.87
ATOM	3995	O	THR	B	218	29.472	21.575	72.100	1.00	33.12
ATOM	3996	N	GLN	B	219	27.581	21.301	73.262	1.00	42.47
ATOM	3997	CA	GLN	B	219	27.023	22.603	72.942	1.00	48.42
ATOM	3998	CB	GLN	B	219	25.735	22.859	73.734	1.00	61.04
ATOM	3999	CG	GLN	B	219	24.465	22.396	73.043	1.00	75.20
ATOM	4000	CD	GLN	B	219	23.709	21.356	73.846	1.00	86.54
ATOM	4001	OE1	GLN	B	219	24.156	20.217	73.990	1.00	100.39
ATOM	4002	NE2	GLN	B	219	22.552	21.750	74.373	1.00	96.05
ATOM	4003	C	GLN	B	219	27.988	23.745	73.241	1.00	42.13

**FIGURE 179**

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ATOM	4004	O	GLN B 219	27.912	24.784	72.588	1.00	38.02
ATOM	4005	N	SER B 220	28.856	23.557	74.230	1.00	41.58
ATOM	4006	CA	SER B 220	29.702	24.652	74.687	1.00	41.47
ATOM	4007	CB	SER B 220	30.377	24.324	76.022	1.00	40.77
ATOM	4008	OG	SER B 220	31.170	25.425	76.432	1.00	52.01
ATOM	4009	C	SER B 220	30.781	24.985	73.661	1.00	32.19
ATOM	4010	O	SER B 220	30.948	26.137	73.270	1.00	34.50
ATOM	4011	N	LEU B 221	31.491	23.939	73.262	1.00	32.63
ATOM	4012	CA	LEU B 221	32.578	24.130	72.312	1.00	30.11
ATOM	4013	CB	LEU B 221	33.532	22.934	72.268	1.00	31.66
ATOM	4014	CG	LEU B 221	34.848	23.244	71.525	1.00	33.07
ATOM	4015	CD1	LEU B 221	35.653	24.288	72.290	1.00	29.11
ATOM	4016	CD2	LEU B 221	35.641	21.978	71.284	1.00	29.80
ATOM	4017	C	LEU B 221	31.970	24.416	70.944	1.00	30.52
ATOM	4018	O	LEU B 221	32.479	25.263	70.210	1.00	31.28
ATOM	4019	N	ILE B 222	30.879	23.712	70.649	1.00	30.64
ATOM	4020	CA	ILE B 222	30.208	23.955	69.364	1.00	35.39
ATOM	4021	CB	ILE B 222	28.961	23.069	69.244	1.00	28.31
ATOM	4022	CG1	ILE B 222	29.280	21.656	68.733	1.00	23.30
ATOM	4023	CD1	ILE B 222	28.138	20.695	68.988	1.00	31.06
ATOM	4024	CG2	ILE B 222	27.871	23.684	68.394	1.00	30.00
ATOM	4025	C	ILE B 222	29.871	25.433	69.215	1.00	31.09
ATOM	4026	O	ILE B 222	30.088	26.049	68.169	1.00	30.29
ATOM	4027	N	GLN B 223	29.352	26.009	70.296	1.00	31.17
ATOM	4028	CA	GLN B 223	28.973	27.416	70.289	1.00	33.58
ATOM	4029	CB	GLN B 223	28.201	27.804	71.554	1.00	39.47
ATOM	4030	CG	GLN B 223	27.198	28.916	71.237	1.00	56.44
ATOM	4031	CD	GLN B 223	26.886	28.937	69.747	1.00	72.62
ATOM	4032	OE1	GLN B 223	26.007	28.216	69.269	1.00	73.13
ATOM	4033	NE2	GLN B 223	27.618	29.765	69.008	1.00	86.88
ATOM	4034	C	GLN B 223	30.210	28.300	70.151	1.00	27.54
ATOM	4035	O	GLN B 223	30.195	29.217	69.338	1.00	28.05
ATOM	4036	N	PHE B 224	31.238	27.991	70.934	1.00	26.93
ATOM	4037	CA	PHE B 224	32.529	28.675	70.816	1.00	21.53
ATOM	4038	CB	PHE B 224	33.554	28.029	71.726	1.00	22.20
ATOM	4039	CG	PHE B 224	34.930	28.683	71.736	1.00	25.50
ATOM	4040	CD1	PHE B 224	35.141	29.892	72.381	1.00	24.49
ATOM	4041	CE1	PHE B 224	36.398	30.465	72.413	1.00	22.79
ATOM	4042	CZ	PHE B 224	37.451	29.853	71.766	1.00	14.40
ATOM	4043	CE2	PHE B 224	37.260	28.650	71.125	1.00	22.52
ATOM	4044	CD2	PHE B 224	36.000	28.071	71.113	1.00	23.70
ATOM	4045	C	PHE B 224	33.033	28.659	69.372	1.00	25.07
ATOM	4046	O	PHE B 224	33.291	29.707	68.770	1.00	33.29
ATOM	4047	N	VAL B 225	33.166	27.464	68.800	1.00	21.05
ATOM	4048	CA	VAL B 225	33.655	27.335	67.431	1.00	21.13
ATOM	4049	CB	VAL B 225	33.656	25.868	66.962	1.00	20.06
ATOM	4050	CG1	VAL B 225	33.778	25.769	65.448	1.00	21.52
ATOM	4051	CG2	VAL B 225	34.796	25.101	67.607	1.00	23.47
ATOM	4052	C	VAL B 225	32.826	28.179	66.470	1.00	34.08
ATOM	4053	O	VAL B 225	33.395	28.901	65.641	1.00	30.78
ATOM	4054	N	ARG B 226	31.498	28.088	66.584	1.00	33.79
ATOM	4055	CA	ARG B 226	30.663	28.875	65.670	1.00	32.97

**FIGURE 180**



ATOM	4056	CB	ARG	B	226	29.185	28.551	65.852	1.00	36.13
ATOM	4057	CG	ARG	B	226	28.846	27.076	65.682	1.00	38.26
ATOM	4058	CD	ARG	B	226	27.340	26.867	65.634	1.00	43.64
ATOM	4059	NE	ARG	B	226	26.967	25.743	64.773	1.00	52.04
ATOM	4060	CZ	ARG	B	226	25.960	24.913	65.031	1.00	56.46
ATOM	4061	NH1	ARG	B	226	25.229	25.084	66.127	1.00	38.23
ATOM	4062	NH2	ARG	B	226	25.688	23.917	64.197	1.00	53.92
ATOM	4063	C	ARG	B	226	30.933	30.356	65.886	1.00	38.04
ATOM	4064	O	ARG	B	226	31.031	31.144	64.947	1.00	40.50
ATOM	4065	N	THR	B	227	31.077	30.745	67.151	1.00	32.88
ATOM	4066	CA	THR	B	227	31.406	32.146	67.425	1.00	34.79
ATOM	4067	CB	THR	B	227	31.474	32.430	68.937	1.00	37.87
ATOM	4068	OG1	THR	B	227	30.160	32.368	69.504	1.00	44.90
ATOM	4069	CG2	THR	B	227	31.977	33.840	69.194	1.00	37.73
ATOM	4070	C	THR	B	227	32.728	32.514	66.772	1.00	33.01
ATOM	4071	O	THR	B	227	32.879	33.558	66.136	1.00	29.02
ATOM	4072	N	VAL	B	228	33.737	31.645	66.903	1.00	29.04
ATOM	4073	CA	VAL	B	228	35.022	32.021	66.300	1.00	25.89
ATOM	4074	CB	VAL	B	228	36.125	31.038	66.728	1.00	27.50
ATOM	4075	CG1	VAL	B	228	37.419	31.376	66.005	1.00	25.74
ATOM	4076	CG2	VAL	B	228	36.316	31.066	68.244	1.00	22.05
ATOM	4077	C	VAL	B	228	34.929	32.108	64.779	1.00	25.85
ATOM	4078	O	VAL	B	228	35.454	33.028	64.145	1.00	26.36
ATOM	4079	N	ARG	B	229	34.253	31.163	64.145	1.00	30.24
ATOM	4080	CA	ARG	B	229	34.172	31.158	62.678	1.00	30.97
ATOM	4081	CB	ARG	B	229	33.486	29.872	62.232	1.00	35.10
ATOM	4082	CG	ARG	B	229	33.083	29.811	60.772	1.00	37.64
ATOM	4083	CD	ARG	B	229	34.250	30.014	59.828	1.00	31.83
ATOM	4084	NE	ARG	B	229	35.361	29.082	60.089	1.00	32.88
ATOM	4085	CZ	ARG	B	229	36.512	29.276	59.439	1.00	32.94
ATOM	4086	NH1	ARG	B	229	36.535	30.304	58.602	1.00	27.58
ATOM	4087	NH2	ARG	B	229	37.576	28.513	59.590	1.00	33.74
ATOM	4088	C	ARG	B	229	33.459	32.398	62.160	1.00	38.61
ATOM	4089	O	ARG	B	229	33.809	32.946	61.105	1.00	36.42
ATOM	4090	N	ASP	B	230	32.458	32.876	62.897	1.00	30.67
ATOM	4091	CA	ASP	B	230	31.792	34.128	62.548	1.00	40.26
ATOM	4092	CB	ASP	B	230	30.693	34.455	63.561	1.00	50.06
ATOM	4093	CG	ASP	B	230	29.903	35.704	63.234	1.00	61.05
ATOM	4094	OD1	ASP	B	230	30.234	36.779	63.781	1.00	62.97
ATOM	4095	OD2	ASP	B	230	28.939	35.635	62.438	1.00	74.52
ATOM	4096	C	ASP	B	230	32.777	35.287	62.469	1.00	38.62
ATOM	4097	O	ASP	B	230	32.680	36.128	61.574	1.00	42.73
ATOM	4098	N	TYR	B	231	33.732	35.352	63.398	1.00	33.95
ATOM	4099	CA	TYR	B	231	34.680	36.464	63.395	1.00	30.28
ATOM	4100	CB	TYR	B	231	35.391	36.596	64.743	1.00	28.40
ATOM	4101	CG	TYR	B	231	34.545	37.304	65.783	1.00	31.94
ATOM	4102	CD1	TYR	B	231	33.721	36.575	66.632	1.00	31.04
ATOM	4103	CE1	TYR	B	231	32.953	37.221	67.582	1.00	39.71
ATOM	4104	CZ	TYR	B	231	33.006	38.593	67.685	1.00	44.93
ATOM	4105	OH	TYR	B	231	32.237	39.231	68.633	1.00	67.37
ATOM	4106	CE2	TYR	B	231	33.819	39.333	66.854	1.00	41.23
ATOM	4107	CD2	TYR	B	231	34.587	38.684	65.905	1.00	39.54

**FIGURE 181**

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ATOM	4108	C	TYR	B	231	35.726	36.297	62.305	1.00	28.70
ATOM	4109	O	TYR	B	231	36.213	37.238	61.692	1.00	29.85
ATOM	4110	N	ILE	B	232	36.093	35.038	62.062	1.00	24.82
ATOM	4111	CA	ILE	B	232	37.053	34.819	60.989	1.00	25.65
ATOM	4112	CB	ILE	B	232	37.473	33.341	60.961	1.00	22.20
ATOM	4113	CG1	ILE	B	232	38.346	32.951	62.164	1.00	25.46
ATOM	4114	CD1	ILE	B	232	38.402	31.452	62.401	1.00	22.19
ATOM	4115	CG2	ILE	B	232	38.159	32.987	59.653	1.00	26.03
ATOM	4116	C	ILE	B	232	36.450	35.262	59.657	1.00	29.68
ATOM	4117	O	ILE	B	232	37.061	35.995	58.876	1.00	29.18
ATOM	4118	N	ASN	B	233	35.229	34.806	59.410	1.00	29.88
ATOM	4119	CA	ASN	B	233	34.545	35.100	58.151	1.00	43.60
ATOM	4120	CB	ASN	B	233	33.148	34.472	58.179	1.00	35.22
ATOM	4121	CG	ASN	B	233	33.220	32.979	57.909	1.00	32.42
ATOM	4122	OD1	ASN	B	233	34.221	32.501	57.366	1.00	44.01
ATOM	4123	ND2	ASN	B	233	32.188	32.220	58.277	1.00	29.47
ATOM	4124	C	ASN	B	233	34.512	36.604	57.892	1.00	43.88
ATOM	4125	O	ASN	B	233	34.637	37.078	56.762	1.00	42.08
ATOM	4126	N	ARG	B	234	34.368	37.357	58.967	1.00	40.25
ATOM	4127	CA	ARG	B	234	34.313	38.803	58.982	1.00	36.71
ATOM	4128	CB	ARG	B	234	33.385	39.259	60.130	1.00	40.64
ATOM	4129	CG	ARG	B	234	31.918	39.153	59.733	1.00	50.04
ATOM	4130	CD	ARG	B	234	30.963	39.234	60.907	1.00	52.66
ATOM	4131	NE	ARG	B	234	31.267	40.346	61.795	1.00	61.93
ATOM	4132	CZ	ARG	B	234	31.331	40.270	63.116	1.00	64.33
ATOM	4133	NH1	ARG	B	234	31.107	39.119	63.732	1.00	53.92
ATOM	4134	NH2	ARG	B	234	31.619	41.352	63.825	1.00	74.42
ATOM	4135	C	ARG	B	234	35.685	39.434	59.137	1.00	37.82
ATOM	4136	O	ARG	B	234	35.784	40.545	59.659	1.00	49.54
ATOM	4137	N	SER	B	235	36.743	38.756	58.701	1.00	31.78
ATOM	4138	CA	SER	B	235	38.087	39.304	58.815	1.00	29.31
ATOM	4139	CB	SER	B	235	38.901	38.548	59.875	1.00	32.90
ATOM	4140	OG	SER	B	235	38.135	38.323	61.045	1.00	44.62
ATOM	4141	C	SER	B	235	38.846	39.252	57.494	1.00	35.75
ATOM	4142	O	SER	B	235	39.935	38.678	57.421	1.00	35.41
ATOM	4143	N	PRO	B	236	38.319	39.848	56.436	1.00	47.17
ATOM	4144	CA	PRO	B	236	38.933	39.718	55.109	1.00	44.13
ATOM	4145	CB	PRO	B	236	38.008	40.545	54.210	1.00	50.97
ATOM	4146	CG	PRO	B	236	37.355	41.506	55.150	1.00	56.25
ATOM	4147	CD	PRO	B	236	37.121	40.705	56.408	1.00	56.24
ATOM	4148	C	PRO	B	236	40.345	40.289	55.070	1.00	37.49
ATOM	4149	O	PRO	B	236	40.660	41.313	55.678	1.00	43.03
ATOM	4150	N	GLY	B	237	41.209	39.586	54.341	1.00	33.65
ATOM	4151	CA	GLY	B	237	42.601	39.994	54.248	1.00	33.46
ATOM	4152	C	GLY	B	237	43.421	39.477	55.407	1.00	26.07
ATOM	4153	O	GLY	B	237	44.630	39.670	55.500	1.00	25.20
ATOM	4154	N	ALA	B	238	42.775	38.780	56.352	1.00	26.17
ATOM	4155	CA	ALA	B	238	43.611	38.252	57.430	1.00	26.70
ATOM	4156	CB	ALA	B	238	42.759	37.864	58.628	1.00	26.33
ATOM	4157	C	ALA	B	238	44.430	37.058	56.946	1.00	32.60
ATOM	4158	O	ALA	B	238	44.004	36.279	56.094	1.00	20.91
ATOM	4159	N	GLY	B	239	45.618	36.924	57.534	1.00	28.56

**FIGURE 182**

ATOM	4160	CA	GLY	B	239	46.374	35.691	57.339	1.00	28.75
ATOM	4161	C	GLY	B	239	45.729	34.583	58.179	1.00	23.57
ATOM	4162	O	GLY	B	239	44.556	34.686	58.553	1.00	18.99
ATOM	4163	N	PRO	B	240	46.550	33.575	58.437	1.00	19.16
ATOM	4164	CA	PRO	B	240	46.088	32.396	59.170	1.00	19.17
ATOM	4165	CB	PRO	B	240	47.379	31.599	59.391	1.00	21.18
ATOM	4166	CG	PRO	B	240	48.234	32.001	58.234	1.00	25.38
ATOM	4167	CD	PRO	B	240	47.974	33.480	58.072	1.00	25.67
ATOM	4168	C	PRO	B	240	45.451	32.781	60.494	1.00	19.52
ATOM	4169	O	PRO	B	240	45.740	33.818	61.093	1.00	24.13
ATOM	4170	N	THR	B	241	44.550	31.928	60.942	1.00	18.39
ATOM	4171	CA	THR	B	241	43.980	32.007	62.281	1.00	20.07
ATOM	4172	CB	THR	B	241	42.583	31.387	62.332	1.00	20.89
ATOM	4173	OG1	THR	B	241	41.622	32.194	61.631	1.00	19.78
ATOM	4174	CG2	THR	B	241	42.096	31.306	63.780	1.00	20.55
ATOM	4175	C	THR	B	241	44.926	31.258	63.221	1.00	23.29
ATOM	4176	O	THR	B	241	45.272	30.103	62.927	1.00	13.70
ATOM	4177	N	VAL	B	242	45.381	31.875	64.316	1.00	18.05
ATOM	4178	CA	VAL	B	242	46.289	31.126	65.197	1.00	19.59
ATOM	4179	CB	VAL	B	242	47.234	32.049	65.978	1.00	19.99
ATOM	4180	CG1	VAL	B	242	47.973	31.281	67.071	1.00	22.26
ATOM	4181	CG2	VAL	B	242	48.256	32.701	65.060	1.00	15.38
ATOM	4182	C	VAL	B	242	45.478	30.266	66.157	1.00	17.32
ATOM	4183	O	VAL	B	242	44.453	30.702	66.663	1.00	14.54
ATOM	4184	N	VAL	B	243	45.897	29.019	66.424	1.00	16.24
ATOM	4185	CA	VAL	B	243	45.166	28.247	67.444	1.00	13.16
ATOM	4186	CB	VAL	B	243	44.275	27.150	66.860	1.00	15.05
ATOM	4187	CG1	VAL	B	243	43.399	26.461	67.922	1.00	13.07
ATOM	4188	CG2	VAL	B	243	43.389	27.729	65.760	1.00	10.83
ATOM	4189	C	VAL	B	243	46.218	27.641	68.355	1.00	12.85
ATOM	4190	O	VAL	B	243	47.232	27.116	67.875	1.00	13.00
ATOM	4191	N	HIS	B	244	46.034	27.683	69.667	1.00	17.27
ATOM	4192	CA	HIS	B	244	47.023	27.037	70.522	1.00	14.69
ATOM	4193	CB	HIS	B	244	48.209	27.931	70.868	1.00	17.49
ATOM	4194	CG	HIS	B	244	47.942	28.983	71.909	1.00	22.46
ATOM	4195	ND1	HIS	B	244	48.065	28.773	73.260	1.00	18.81
ATOM	4196	CE1	HIS	B	244	47.778	29.877	73.925	1.00	16.49
ATOM	4197	NE2	HIS	B	244	47.471	30.820	73.044	1.00	20.57
ATOM	4198	CD2	HIS	B	244	47.576	30.286	71.781	1.00	22.25
ATOM	4199	C	HIS	B	244	46.349	26.574	71.821	1.00	12.09
ATOM	4200	O	HIS	B	244	45.286	27.061	72.168	1.00	14.03
ATOM	4201	N	CYS	B	245	47.029	25.631	72.434	1.00	16.27
ATOM	4202	CA	CYS	B	245	46.655	25.083	73.747	1.00	15.96
ATOM	4203	CB	CYS	B	245	45.929	23.756	73.577	1.00	24.17
ATOM	4204	SG	CYS	B	245	46.767	22.530	72.540	1.00	19.97
ATOM	4205	C	CYS	B	245	47.952	25.010	74.536	1.00	23.79
ATOM	4206	O	CYS	B	245	48.651	26.039	74.621	1.00	17.71
ATOM	4207	N	SER	B	246	48.357	23.869	75.088	1.00	15.26
ATOM	4208	CA	SER	B	246	49.645	23.864	75.785	1.00	15.41
ATOM	4209	CB	SER	B	246	49.587	23.047	77.091	1.00	8.58
ATOM	4210	OG	SER	B	246	50.839	23.185	77.745	1.00	14.15
ATOM	4211	C	SER	B	246	50.725	23.332	74.858	1.00	19.97

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FIGURE 183

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ATOM	4212	O	SER B 246	51.746	23.963	74.592	1.00	14.07
ATOM	4213	N	ALA B 247	50.505	22.130	74.328	1.00	17.84
ATOM	4214	CA	ALA B 247	51.486	21.562	73.428	1.00	12.20
ATOM	4215	CB	ALA B 247	51.563	20.047	73.532	1.00	18.43
ATOM	4216	C	ALA B 247	51.157	21.898	71.970	1.00	13.39
ATOM	4217	O	ALA B 247	52.039	21.689	71.133	1.00	21.82
ATOM	4218	N	GLY B 248	49.949	22.376	71.712	1.00	11.10
ATOM	4219	CA	GLY B 248	49.513	22.677	70.361	1.00	14.48
ATOM	4220	C	GLY B 248	49.114	21.449	69.571	1.00	26.17
ATOM	4221	O	GLY B 248	49.288	21.419	68.350	1.00	26.33
ATOM	4222	N	VAL B 249	48.574	20.398	70.200	1.00	19.25
ATOM	4223	CA	VAL B 249	48.239	19.232	69.365	1.00	19.23
ATOM	4224	CB	VAL B 249	49.293	18.114	69.401	1.00	18.92
ATOM	4225	CG1	VAL B 249	50.682	18.568	68.977	1.00	15.44
ATOM	4226	CG2	VAL B 249	49.432	17.478	70.794	1.00	20.80
ATOM	4227	C	VAL B 249	46.884	18.672	69.748	1.00	16.22
ATOM	4228	O	VAL B 249	46.010	18.434	68.890	1.00	22.29
ATOM	4229	N	GLY B 250	46.602	18.422	71.030	1.00	21.24
ATOM	4230	CA	GLY B 250	45.334	17.751	71.313	1.00	23.25
ATOM	4231	C	GLY B 250	44.109	18.612	71.266	1.00	24.10
ATOM	4232	O	GLY B 250	43.159	18.477	70.484	1.00	21.30
ATOM	4233	N	ARG B 251	44.071	19.606	72.170	1.00	12.60
ATOM	4234	CA	ARG B 251	42.891	20.459	72.174	1.00	14.08
ATOM	4235	CB	ARG B 251	42.941	21.317	73.449	1.00	17.84
ATOM	4236	CG	ARG B 251	42.681	20.419	74.664	1.00	18.30
ATOM	4237	CD	ARG B 251	42.862	21.184	75.963	1.00	15.33
ATOM	4238	NE	ARG B 251	44.280	21.335	76.262	1.00	21.24
ATOM	4239	CZ	ARG B 251	44.713	22.030	77.317	1.00	22.30
ATOM	4240	NH1	ARG B 251	43.820	22.588	78.124	1.00	18.21
ATOM	4241	NH2	ARG B 251	46.013	22.129	77.516	1.00	17.67
ATOM	4242	C	ARG B 251	42.869	21.322	70.928	1.00	18.05
ATOM	4243	O	ARG B 251	41.815	21.598	70.358	1.00	21.59
ATOM	4244	N	THR B 252	44.086	21.740	70.545	1.00	14.56
ATOM	4245	CA	THR B 252	44.135	22.560	69.328	1.00	21.90
ATOM	4246	CB	THR B 252	45.580	23.025	69.081	1.00	21.05
ATOM	4247	OG1	THR B 252	45.872	24.089	70.001	1.00	21.60
ATOM	4248	CG2	THR B 252	45.705	23.561	67.670	1.00	19.25
ATOM	4249	C	THR B 252	43.600	21.794	68.120	1.00	21.20
ATOM	4250	O	THR B 252	42.811	22.292	67.312	1.00	19.48
ATOM	4251	N	GLY B 253	44.043	20.545	68.002	1.00	22.67
ATOM	4252	CA	GLY B 253	43.671	19.713	66.862	1.00	16.29
ATOM	4253	C	GLY B 253	42.198	19.395	66.821	1.00	22.35
ATOM	4254	O	GLY B 253	41.587	19.330	65.747	1.00	19.39
ATOM	4255	N	THR B 254	41.634	19.191	68.022	1.00	25.18
ATOM	4256	CA	THR B 254	40.194	18.939	68.106	1.00	15.84
ATOM	4257	CB	THR B 254	39.805	18.402	69.499	1.00	21.21
ATOM	4258	OG1	THR B 254	40.624	17.266	69.796	1.00	19.04
ATOM	4259	CG2	THR B 254	38.361	17.943	69.525	1.00	24.29
ATOM	4260	C	THR B 254	39.422	20.198	67.781	1.00	19.07
ATOM	4261	O	THR B 254	38.352	20.162	67.182	1.00	21.18
ATOM	4262	N	PHE B 255	39.931	21.367	68.178	1.00	21.95
ATOM	4263	CA	PHE B 255	39.225	22.595	67.821	1.00	22.07

**FIGURE 184**

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ATOM	4264	CB	PHE	B	255	39.910	23.855	68.368	1.00	20.64
ATOM	4265	CG	PHE	B	255	39.280	25.177	67.939	1.00	16.94
ATOM	4266	CD1	PHE	B	255	38.222	25.716	68.650	1.00	17.36
ATOM	4267	CE1	PHE	B	255	37.628	26.901	68.272	1.00	16.83
ATOM	4268	CZ	PHE	B	255	38.079	27.576	67.156	1.00	20.63
ATOM	4269	CE2	PHE	B	255	39.141	27.067	66.427	1.00	15.59
ATOM	4270	CD2	PHE	B	255	39.730	25.892	66.841	1.00	26.52
ATOM	4271	C	PHE	B	255	39.148	22.712	66.298	1.00	16.89
ATOM	4272	O	PHE	B	255	38.114	23.045	65.727	1.00	22.55
ATOM	4273	N	ILE	B	256	40.305	22.497	65.682	1.00	22.37
ATOM	4274	CA	ILE	B	256	40.393	22.694	64.232	1.00	26.45
ATOM	4275	CB	ILE	B	256	41.841	22.644	63.742	1.00	22.17
ATOM	4276	CG1	ILE	B	256	42.717	23.802	64.245	1.00	19.09
ATOM	4277	CD1	ILE	B	256	44.182	23.636	63.845	1.00	17.45
ATOM	4278	CG2	ILE	B	256	41.861	22.570	62.218	1.00	25.40
ATOM	4279	C	ILE	B	256	39.556	21.645	63.513	1.00	25.61
ATOM	4280	O	ILE	B	256	38.871	21.935	62.537	1.00	32.43
ATOM	4281	N	ALA	B	257	39.588	20.418	64.006	1.00	22.52
ATOM	4282	CA	ALA	B	257	38.740	19.395	63.390	1.00	28.35
ATOM	4283	CB	ALA	B	257	39.011	18.049	64.057	1.00	23.53
ATOM	4284	C	ALA	B	257	37.271	19.768	63.462	1.00	31.55
ATOM	4285	O	ALA	B	257	36.495	19.520	62.536	1.00	36.42
ATOM	4286	N	LEU	B	258	36.833	20.366	64.568	1.00	27.78
ATOM	4287	CA	LEU	B	258	35.425	20.714	64.735	1.00	25.99
ATOM	4288	CB	LEU	B	258	35.101	21.046	66.201	1.00	29.85
ATOM	4289	CG	LEU	B	258	33.612	21.160	66.530	1.00	31.93
ATOM	4290	CD1	LEU	B	258	32.852	19.931	66.050	1.00	21.42
ATOM	4291	CD2	LEU	B	258	33.381	21.372	68.020	1.00	29.92
ATOM	4292	C	LEU	B	258	35.049	21.898	63.862	1.00	28.98
ATOM	4293	O	LEU	B	258	33.955	21.967	63.306	1.00	33.28
ATOM	4294	N	ASP	B	259	35.976	22.850	63.743	1.00	25.38
ATOM	4295	CA	ASP	B	259	35.725	23.991	62.856	1.00	26.70
ATOM	4296	CB	ASP	B	259	36.911	24.943	62.895	1.00	25.83
ATOM	4297	CG	ASP	B	259	36.704	26.266	62.193	1.00	34.39
ATOM	4298	OD1	ASP	B	259	35.615	26.855	62.335	1.00	28.39
ATOM	4299	OD2	ASP	B	259	37.650	26.717	61.505	1.00	32.58
ATOM	4300	C	ASP	B	259	35.466	23.504	61.433	1.00	19.95
ATOM	4301	O	ASP	B	259	34.559	23.983	60.753	1.00	32.03
ATOM	4302	N	ARG	B	260	36.261	22.532	60.984	1.00	24.53
ATOM	4303	CA	ARG	B	260	36.087	22.057	59.603	1.00	25.87
ATOM	4304	CB	ARG	B	260	37.297	21.239	59.169	1.00	26.24
ATOM	4305	CG	ARG	B	260	38.591	22.045	59.058	1.00	28.14
ATOM	4306	CD	ARG	B	260	39.709	21.131	58.569	1.00	24.62
ATOM	4307	NE	ARG	B	260	39.311	20.472	57.320	1.00	31.53
ATOM	4308	CZ	ARG	B	260	40.177	20.214	56.345	1.00	39.36
ATOM	4309	NH1	ARG	B	260	41.447	20.563	56.493	1.00	41.26
ATOM	4310	NH2	ARG	B	260	39.778	19.617	55.231	1.00	56.76
ATOM	4311	C	ARG	B	260	34.822	21.239	59.447	1.00	31.74
ATOM	4312	O	ARG	B	260	34.189	21.251	58.392	1.00	39.13
ATOM	4313	N	ILE	B	261	34.381	20.492	60.468	1.00	30.98
ATOM	4314	CA	ILE	B	261	33.208	19.657	60.165	1.00	35.76
ATOM	4315	CB	ILE	B	261	33.146	18.381	61.023	1.00	33.31

**FIGURE 185**

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ATOM	4316	CG1	ILE	B	261	32.912	18.576	62.521	1.00	27.49
ATOM	4317	CD1	ILE	B	261	33.493	17.459	63.368	1.00	32.91
ATOM	4318	CG2	ILE	B	261	34.414	17.561	60.796	1.00	33.85
ATOM	4319	C	ILE	B	261	31.938	20.476	60.307	1.00	41.61
ATOM	4320	O	ILE	B	261	30.932	20.212	59.641	1.00	42.61
ATOM	4321	N	LEU	B	262	31.977	21.494	61.170	1.00	36.25
ATOM	4322	CA	LEU	B	262	30.747	22.281	61.321	1.00	37.79
ATOM	4323	CB	LEU	B	262	30.868	23.297	62.448	1.00	33.16
ATOM	4324	CG	LEU	B	262	30.867	22.707	63.865	1.00	34.98
ATOM	4325	CD1	LEU	B	262	30.730	23.791	64.918	1.00	35.24
ATOM	4326	CD2	LEU	B	262	29.751	21.680	64.011	1.00	39.50
ATOM	4327	C	LEU	B	262	30.444	22.945	59.982	1.00	48.10
ATOM	4328	O	LEU	B	262	29.297	23.137	59.592	1.00	54.41
ATOM	4329	N	GLN	B	263	31.536	23.268	59.294	1.00	42.55
ATOM	4330	CA	GLN	B	263	31.446	23.852	57.963	1.00	45.39
ATOM	4331	CB	GLN	B	263	32.819	24.403	57.562	1.00	47.06
ATOM	4332	CG	GLN	B	263	33.160	25.695	58.293	1.00	52.92
ATOM	4333	CD	GLN	B	263	34.546	26.217	57.972	1.00	51.62
ATOM	4334	OE1	GLN	B	263	34.689	27.171	57.208	1.00	48.47
ATOM	4335	NE2	GLN	B	263	35.575	25.609	58.552	1.00	34.73
ATOM	4336	C	GLN	B	263	30.935	22.825	56.961	1.00	37.20
ATOM	4337	O	GLN	B	263	29.987	23.076	56.223	1.00	36.52
ATOM	4338	N	GLN	B	264	31.551	21.651	56.930	1.00	48.77
ATOM	4339	CA	GLN	B	264	31.089	20.583	56.052	1.00	54.55
ATOM	4340	CB	GLN	B	264	31.890	19.305	56.289	1.00	51.39
ATOM	4341	CG	GLN	B	264	33.377	19.395	55.996	1.00	45.82
ATOM	4342	CD	GLN	B	264	34.080	18.072	56.248	1.00	49.30
ATOM	4343	OE1	GLN	B	264	33.426	17.046	56.440	1.00	54.85
ATOM	4344	NE2	GLN	B	264	35.410	18.093	56.256	1.00	42.52
ATOM	4345	C	GLN	B	264	29.602	20.309	56.268	1.00	65.82
ATOM	4346	O	GLN	B	264	28.854	20.101	55.312	1.00	71.36
ATOM	4347	N	LEU	B	265	29.169	20.311	57.529	1.00	66.58
ATOM	4348	CA	LEU	B	265	27.766	20.033	57.816	1.00	67.06
ATOM	4349	CB	LEU	B	265	27.465	20.150	59.309	1.00	67.27
ATOM	4350	CG	LEU	B	265	27.604	18.870	60.130	1.00	71.80
ATOM	4351	CD1	LEU	B	265	27.000	19.066	61.515	1.00	69.10
ATOM	4352	CD2	LEU	B	265	26.955	17.695	59.409	1.00	78.85
ATOM	4353	C	LEU	B	265	26.858	20.996	57.055	1.00	65.79
ATOM	4354	O	LEU	B	265	25.951	20.581	56.340	1.00	62.34
ATOM	4355	N	ASP	B	266	27.140	22.278	57.242	1.00	61.77
ATOM	4356	CA	ASP	B	266	26.333	23.341	56.663	1.00	64.82
ATOM	4357	CB	ASP	B	266	26.740	24.673	57.312	1.00	71.48
ATOM	4358	CG	ASP	B	266	26.589	24.603	58.822	1.00	82.79
ATOM	4359	OD1	ASP	B	266	26.033	23.597	59.312	1.00	89.00
ATOM	4360	OD2	ASP	B	266	27.021	25.562	59.500	1.00	104.58
ATOM	4361	C	ASP	B	266	26.454	23.433	55.152	1.00	62.69
ATOM	4362	O	ASP	B	266	25.779	24.251	54.519	1.00	61.16
ATOM	4363	N	SER	B	267	27.294	22.612	54.520	1.00	56.01
ATOM	4364	CA	SER	B	267	27.375	22.733	53.063	1.00	54.60
ATOM	4365	CB	SER	B	267	28.557	23.647	52.720	1.00	53.27
ATOM	4366	OG	SER	B	267	29.698	23.231	53.454	1.00	48.03
ATOM	4367	C	SER	B	267	27.529	21.401	52.353	1.00	61.19

**FIGURE 186**

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ATOM	4368	O	SER	B	267	27.489	21.325	51.121	1.00	78.99
ATOM	4369	N	LYS	B	268	27.711	20.321	53.101	1.00	66.12
ATOM	4370	CA	LYS	B	268	27.946	19.017	52.481	1.00	67.60
ATOM	4371	CB	LYS	B	268	29.387	18.583	52.742	1.00	73.63
ATOM	4372	CG	LYS	B	268	29.798	17.277	52.087	1.00	76.35
ATOM	4373	CD	LYS	B	268	31.310	17.139	52.000	1.00	69.59
ATOM	4374	CE	LYS	B	268	31.983	17.228	53.356	1.00	57.88
ATOM	4375	NZ	LYS	B	268	32.516	15.916	53.815	1.00	46.13
ATOM	4376	C	LYS	B	268	26.957	17.982	52.997	1.00	59.94
ATOM	4377	O	LYS	B	268	26.428	18.102	54.100	1.00	64.53
ATOM	4378	N	ASP	B	269	26.692	16.955	52.201	1.00	56.14
ATOM	4379	CA	ASP	B	269	25.749	15.913	52.591	1.00	60.87
ATOM	4380	CB	ASP	B	269	24.980	15.392	51.377	1.00	71.26
ATOM	4381	CG	ASP	B	269	25.670	15.678	50.060	1.00	82.48
ATOM	4382	OD1	ASP	B	269	26.027	16.846	49.797	1.00	101.89
ATOM	4383	OD2	ASP	B	269	25.856	14.725	49.273	1.00	103.90
ATOM	4384	C	ASP	B	269	26.479	14.771	53.294	1.00	57.30
ATOM	4385	O	ASP	B	269	25.869	13.797	53.732	1.00	54.94
ATOM	4386	N	SER	B	270	27.797	14.922	53.393	1.00	44.67
ATOM	4387	CA	SER	B	270	28.633	13.990	54.132	1.00	41.73
ATOM	4388	CB	SER	B	270	29.526	13.168	53.206	1.00	43.00
ATOM	4389	OG	SER	B	270	28.790	12.556	52.162	1.00	51.47
ATOM	4390	C	SER	B	270	29.487	14.760	55.142	1.00	42.93
ATOM	4391	O	SER	B	270	29.563	15.988	55.100	1.00	44.44
ATOM	4392	N	VAL	B	271	30.122	14.024	56.045	1.00	39.47
ATOM	4393	CA	VAL	B	271	31.033	14.606	57.020	1.00	42.42
ATOM	4394	CB	VAL	B	271	30.399	14.754	58.412	1.00	43.26
ATOM	4395	CG1	VAL	B	271	29.733	13.460	58.864	1.00	32.79
ATOM	4396	CG2	VAL	B	271	31.460	15.183	59.417	1.00	35.29
ATOM	4397	C	VAL	B	271	32.282	13.735	57.095	1.00	48.99
ATOM	4398	O	VAL	B	271	32.184	12.509	57.041	1.00	58.21
ATOM	4399	N	ASP	B	272	33.444	14.367	57.209	1.00	45.99
ATOM	4400	CA	ASP	B	272	34.707	13.648	57.135	1.00	35.10
ATOM	4401	CB	ASP	B	272	35.417	14.055	55.832	1.00	36.44
ATOM	4402	CG	ASP	B	272	36.191	12.901	55.232	1.00	35.96
ATOM	4403	OD1	ASP	B	272	36.367	11.892	55.943	1.00	46.07
ATOM	4404	OD2	ASP	B	272	36.621	13.010	54.067	1.00	60.29
ATOM	4405	C	ASP	B	272	35.605	13.897	58.334	1.00	38.48
ATOM	4406	O	ASP	B	272	36.631	14.567	58.238	1.00	37.38
ATOM	4407	N	ILE	B	273	35.225	13.349	59.485	1.00	44.55
ATOM	4408	CA	ILE	B	273	36.018	13.484	60.706	1.00	42.80
ATOM	4409	CB	ILE	B	273	35.239	12.986	61.941	1.00	44.89
ATOM	4410	CG1	ILE	B	273	34.010	13.836	62.283	1.00	43.95
ATOM	4411	CD1	ILE	B	273	32.873	13.080	62.950	1.00	28.68
ATOM	4412	CG2	ILE	B	273	36.135	12.859	63.164	1.00	35.00
ATOM	4413	C	ILE	B	273	37.341	12.749	60.554	1.00	43.03
ATOM	4414	O	ILE	B	273	38.397	13.283	60.903	1.00	47.22
ATOM	4415	N	TYR	B	274	37.333	11.528	60.019	1.00	33.68
ATOM	4416	CA	TYR	B	274	38.587	10.824	59.758	1.00	33.83
ATOM	4417	CB	TYR	B	274	38.323	9.463	59.101	1.00	31.32
ATOM	4418	CG	TYR	B	274	39.536	8.615	58.815	1.00	34.21
ATOM	4419	CD1	TYR	B	274	40.011	7.706	59.752	1.00	27.81

**FIGURE 187**

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ATOM	4420	CE1	TYR	B	274	41.124	6.936	59.481	1.00	33.31
ATOM	4421	CZ	TYR	B	274	41.783	7.051	58.280	1.00	38.03
ATOM	4422	OH	TYR	B	274	42.894	6.287	57.994	1.00	74.99
ATOM	4423	CE2	TYR	B	274	41.334	7.942	57.338	1.00	34.20
ATOM	4424	CD2	TYR	B	274	40.227	8.704	57.615	1.00	30.48
ATOM	4425	C	TYR	B	274	39.499	11.654	58.857	1.00	30.77
ATOM	4426	O	TYR	B	274	40.699	11.762	59.091	1.00	42.32
ATOM	4427	N	GLY	B	275	38.914	12.201	57.796	1.00	33.93
ATOM	4428	CA	GLY	B	275	39.661	12.924	56.786	1.00	34.96
ATOM	4429	C	GLY	B	275	40.242	14.213	57.340	1.00	28.44
ATOM	4430	O	GLY	B	275	41.328	14.628	56.928	1.00	26.09
ATOM	4431	N	ALA	B	276	39.508	14.838	58.264	1.00	30.51
ATOM	4432	CA	ALA	B	276	40.037	16.083	58.849	1.00	32.53
ATOM	4433	CB	ALA	B	276	38.977	16.819	59.633	1.00	28.84
ATOM	4434	C	ALA	B	276	41.233	15.754	59.724	1.00	28.27
ATOM	4435	O	ALA	B	276	42.298	16.355	59.634	1.00	27.29
ATOM	4436	N	VAL	B	277	41.052	14.745	60.587	1.00	22.62
ATOM	4437	CA	VAL	B	277	42.157	14.409	61.478	1.00	22.13
ATOM	4438	CB	VAL	B	277	41.713	13.420	62.569	1.00	25.76
ATOM	4439	CG1	VAL	B	277	42.931	12.861	63.293	1.00	33.74
ATOM	4440	CG2	VAL	B	277	40.769	14.087	63.561	1.00	22.07
ATOM	4441	C	VAL	B	277	43.342	13.846	60.712	1.00	31.87
ATOM	4442	O	VAL	B	277	44.512	14.018	61.076	1.00	30.97
ATOM	4443	N	HIS	B	278	43.053	13.141	59.616	1.00	26.49
ATOM	4444	CA	HIS	B	278	44.180	12.632	58.831	1.00	24.97
ATOM	4445	CB	HIS	B	278	43.663	11.735	57.699	1.00	26.29
ATOM	4446	CG	HIS	B	278	44.716	11.393	56.689	1.00	35.64
ATOM	4447	ND1	HIS	B	278	45.145	12.273	55.723	1.00	32.18
ATOM	4448	CE1	HIS	B	278	46.077	11.699	54.986	1.00	36.91
ATOM	4449	NE2	HIS	B	278	46.280	10.473	55.443	1.00	39.75
ATOM	4450	CD2	HIS	B	278	45.440	10.261	56.509	1.00	40.27
ATOM	4451	C	HIS	B	278	44.988	13.809	58.294	1.00	17.49
ATOM	4452	O	HIS	B	278	46.212	13.862	58.377	1.00	21.10
ATOM	4453	N	ASP	B	279	44.262	14.777	57.736	1.00	23.86
ATOM	4454	CA	ASP	B	279	44.908	15.964	57.171	1.00	33.69
ATOM	4455	CB	ASP	B	279	43.864	16.870	56.522	1.00	34.31
ATOM	4456	CG	ASP	B	279	44.369	17.652	55.325	1.00	49.90
ATOM	4457	OD1	ASP	B	279	45.255	17.163	54.584	1.00	38.05
ATOM	4458	OD2	ASP	B	279	43.867	18.782	55.115	1.00	40.80
ATOM	4459	C	ASP	B	279	45.697	16.716	58.238	1.00	26.60
ATOM	4460	O	ASP	B	279	46.841	17.124	58.034	1.00	28.11
ATOM	4461	N	LEU	B	280	45.088	16.895	59.408	1.00	25.81
ATOM	4462	CA	LEU	B	280	45.801	17.538	60.510	1.00	28.08
ATOM	4463	CB	LEU	B	280	44.955	17.535	61.782	1.00	24.40
ATOM	4464	CG	LEU	B	280	43.689	18.389	61.749	1.00	26.95
ATOM	4465	CD1	LEU	B	280	43.088	18.489	63.138	1.00	30.65
ATOM	4466	CD2	LEU	B	280	43.987	19.757	61.164	1.00	49.17
ATOM	4467	C	LEU	B	280	47.117	16.834	60.804	1.00	32.98
ATOM	4468	O	LEU	B	280	48.141	17.483	61.022	1.00	28.16
ATOM	4469	N	ARG	B	281	47.078	15.503	60.816	1.00	21.92
ATOM	4470	CA	ARG	B	281	48.252	14.703	61.134	1.00	14.30
ATOM	4471	CB	ARG	B	281	47.854	13.212	61.199	1.00	15.59

**FIGURE 188**



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ATOM	4472	CG	ARG	B	281	46.856	12.946	62.326	1.00	30.08
ATOM	4473	CD	ARG	B	281	47.580	12.419	63.554	1.00	35.07
ATOM	4474	NE	ARG	B	281	46.665	12.288	64.685	1.00	41.36
ATOM	4475	CZ	ARG	B	281	46.356	11.125	65.243	1.00	44.73
ATOM	4476	NH1	ARG	B	281	46.894	10.010	64.769	1.00	39.14
ATOM	4477	NH2	ARG	B	281	45.515	11.092	66.268	1.00	40.94
ATOM	4478	C	ARG	B	281	49.378	14.834	60.141	1.00	16.56
ATOM	4479	O	ARG	B	281	50.574	14.692	60.430	1.00	23.41
ATOM	4480	N	LEU	B	282	49.000	15.098	58.885	1.00	21.94
ATOM	4481	CA	LEU	B	282	50.085	15.295	57.919	1.00	22.08
ATOM	4482	CB	LEU	B	282	49.505	15.415	56.508	1.00	30.24
ATOM	4483	CG	LEU	B	282	48.946	14.129	55.895	1.00	38.66
ATOM	4484	CD1	LEU	B	282	48.260	14.402	54.563	1.00	35.05
ATOM	4485	CD2	LEU	B	282	50.055	13.099	55.724	1.00	35.97
ATOM	4486	C	LEU	B	282	50.921	16.528	58.246	1.00	22.11
ATOM	4487	O	LEU	B	282	52.089	16.605	57.854	1.00	27.03
ATOM	4488	N	HIS	B	283	50.359	17.509	58.949	1.00	19.17
ATOM	4489	CA	HIS	B	283	51.085	18.767	59.129	1.00	22.40
ATOM	4490	CB	HIS	B	283	50.140	19.931	58.762	1.00	28.15
ATOM	4491	CG	HIS	B	283	49.775	19.824	57.305	1.00	27.86
ATOM	4492	ND1	HIS	B	283	48.636	19.183	56.872	1.00	29.65
ATOM	4493	CE1	HIS	B	283	48.585	19.229	55.549	1.00	28.25
ATOM	4494	NE2	HIS	B	283	49.648	19.884	55.115	1.00	28.83
ATOM	4495	CD2	HIS	B	283	50.417	20.257	56.193	1.00	25.31
ATOM	4496	C	HIS	B	283	51.683	18.946	60.513	1.00	16.39
ATOM	4497	O	HIS	B	283	52.619	19.732	60.696	1.00	19.23
ATOM	4498	N	ARG	B	284	51.215	18.186	61.499	1.00	14.42
ATOM	4499	CA	ARG	B	284	51.851	18.254	62.811	1.00	16.63
ATOM	4500	CB	ARG	B	284	51.353	19.503	63.539	1.00	17.04
ATOM	4501	CG	ARG	B	284	51.990	19.779	64.894	1.00	20.73
ATOM	4502	CD	ARG	B	284	51.670	21.227	65.288	1.00	19.31
ATOM	4503	NE	ARG	B	284	51.932	21.473	66.705	1.00	16.50
ATOM	4504	CZ	ARG	B	284	53.027	22.065	67.155	1.00	18.89
ATOM	4505	NH1	ARG	B	284	53.961	22.471	66.295	1.00	16.50
ATOM	4506	NH2	ARG	B	284	53.184	22.249	68.464	1.00	12.75
ATOM	4507	C	ARG	B	284	51.515	17.002	63.621	1.00	15.24
ATOM	4508	O	ARG	B	284	50.395	16.503	63.515	1.00	21.78
ATOM	4509	N	VAL	B	285	52.472	16.553	64.400	1.00	22.07
ATOM	4510	CA	VAL	B	285	52.309	15.357	65.228	1.00	18.47
ATOM	4511	CB	VAL	B	285	53.643	15.032	65.919	1.00	22.85
ATOM	4512	CG1	VAL	B	285	53.931	15.996	67.065	1.00	21.98
ATOM	4513	CG2	VAL	B	285	53.647	13.591	66.415	1.00	31.56
ATOM	4514	C	VAL	B	285	51.181	15.513	66.237	1.00	31.62
ATOM	4515	O	VAL	B	285	50.887	16.594	66.739	1.00	20.75
ATOM	4516	N	HIS	B	286	50.511	14.404	66.519	1.00	35.82
ATOM	4517	CA	HIS	B	286	49.576	14.183	67.598	1.00	24.99
ATOM	4518	CB	HIS	B	286	50.264	14.498	68.941	1.00	23.90
ATOM	4519	CG	HIS	B	286	51.337	13.511	69.289	1.00	30.81
ATOM	4520	ND1	HIS	B	286	51.236	12.162	69.015	1.00	39.23
ATOM	4521	CE1	HIS	B	286	52.326	11.537	69.425	1.00	40.25
ATOM	4522	NE2	HIS	B	286	53.144	12.431	69.963	1.00	40.87
ATOM	4523	CD2	HIS	B	286	52.543	13.669	69.883	1.00	30.11

**FIGURE 189**

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ATOM	4524	C	HIS	B	286	48.282	14.973	67.520	1.00	28.12	
ATOM	4525	O	HIS	B	286	47.543	15.026	68.515	1.00	34.48	
ATOM	4526	N	MET	B	287	47.981	15.578	66.382	1.00	19.24	
ATOM	4527	CA	MET	B	287	46.741	16.320	66.214	1.00	22.67	
ATOM	4528	CB	MET	B	287	46.545	16.759	64.771	1.00	29.06	
ATOM	4529	CG	MET	B	287	47.551	17.692	64.153	1.00	26.09	
ATOM	4530	SD	MET	B	287	47.319	19.403	64.727	1.00	57.61	1
ATOM	4531	CE	MET	B	287	48.486	19.307	66.054	1.00	8.09	
ATOM	4532	C	MET	B	287	45.535	15.468	66.623	1.00	35.86	
ATOM	4533	O	MET	B	287	45.367	14.357	66.108	1.00	33.56	
ATOM	4534	N	VAL	B	288	44.728	16.000	67.527	1.00	31.94	
ATOM	4535	CA	VAL	B	288	43.671	15.249	68.206	1.00	29.58	
ATOM	4536	CB	VAL	B	288	42.591	14.724	67.262	1.00	25.44	
ATOM	4537	CG1	VAL	B	288	41.504	13.994	68.051	1.00	27.03	
ATOM	4538	CG2	VAL	B	288	41.978	15.870	66.483	1.00	25.23	
ATOM	4539	C	VAL	B	288	44.331	14.102	68.975	1.00	28.49	
ATOM	4540	O	VAL	B	288	44.486	12.998	68.463	1.00	31.96	
ATOM	4541	N	GLN	B	289	44.734	14.434	70.194	1.00	22.07	
ATOM	4542	CA	GLN	B	289	45.722	13.703	70.953	1.00	30.99	
ATOM	4543	CB	GLN	B	289	46.399	14.641	71.955	1.00	32.52	
ATOM	4544	CG	GLN	B	289	47.584	14.032	72.686	1.00	31.56	
ATOM	4545	CD	GLN	B	289	47.342	13.990	74.187	1.00	46.43	
ATOM	4546	OE1	GLN	B	289	46.897	14.972	74.782	1.00	45.11	
ATOM	4547	NE2	GLN	B	289	47.639	12.848	74.795	1.00	56.32	
ATOM	4548	C	GLN	B	289	45.165	12.495	71.695	1.00	34.06	
ATOM	4549	O	GLN	B	289	45.949	11.582	71.976	1.00	37.74	
ATOM	4550	N	THR	B	290	43.874	12.473	71.997	1.00	34.47	
ATOM	4551	CA	THR	B	290	43.323	11.278	72.636	1.00	38.23	
ATOM	4552	CB	THR	B	290	42.869	11.533	74.089	1.00	29.88	
ATOM	4553	OG1	THR	B	290	41.723	12.396	74.064	1.00	32.43	
ATOM	4554	CG2	THR	B	290	43.954	12.209	74.903	1.00	30.96	
ATOM	4555	C	THR	B	290	42.131	10.704	71.879	1.00	38.89	
ATOM	4556	O	THR	B	290	41.394	11.381	71.170	1.00	37.95	
ATOM	4557	N	GLU	B	291	41.927	9.397	72.062	1.00	40.68	
ATOM	4558	CA	GLU	B	291	40.760	8.735	71.494	1.00	35.35	
ATOM	4559	CB	GLU	B	291	40.764	7.261	71.915	1.00	46.96	
ATOM	4560	CG	GLU	B	291	39.750	6.391	71.186	1.00	52.82	
ATOM	4561	CD	GLU	B	291	39.890	4.935	71.603	1.00	55.59	
ATOM	4562	OE1	GLU	B	291	38.878	4.210	71.644	1.00	67.94	
ATOM	4563	OE2	GLU	B	291	41.035	4.536	71.899	1.00	48.99	
ATOM	4564	C	GLU	B	291	39.465	9.394	71.939	1.00	29.83	
ATOM	4565	O	GLU	B	291	38.487	9.486	71.192	1.00	34.01	
ATOM	4566	N	CYS	B	292	39.421	9.874	73.194	1.00	31.22	
ATOM	4567	CA	CYS	B	292	38.144	10.429	73.647	1.00	30.43	
ATOM	4568	CB	CYS	B	292	38.112	10.562	75.169	1.00	36.01	
ATOM	4569	SG	CYS	B	292	39.681	11.083	75.904	1.00	131.76	1
ATOM	4570	C	CYS	B	292	37.862	11.764	72.979	1.00	24.32	
ATOM	4571	O	CYS	B	292	36.720	12.200	72.903	1.00	28.29	
ATOM	4572	N	GLN	B	293	38.915	12.415	72.489	1.00	33.10	
ATOM	4573	CA	GLN	B	293	38.751	13.630	71.694	1.00	30.62	
ATOM	4574	CB	GLN	B	293	40.117	14.322	71.527	1.00	28.49	
ATOM	4575	CG	GLN	B	293	40.470	15.209	72.711	1.00	27.02	

**FIGURE 190**

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ATOM	4576	CD	GLN	B	293	41.904	15.666	72.787	1.00	29.40
ATOM	4577	OE1	GLN	B	293	42.722	15.395	71.907	1.00	31.27
ATOM	4578	NE2	GLN	B	293	42.261	16.375	73.858	1.00	29.27
ATOM	4579	C	GLN	B	293	38.132	13.286	70.347	1.00	26.72
ATOM	4580	O	GLN	B	293	37.224	13.930	69.828	1.00	39.00
ATOM	4581	N	TYR	B	294	38.662	12.203	69.763	1.00	28.45
ATOM	4582	CA	TYR	B	294	38.117	11.677	68.512	1.00	24.87
ATOM	4583	CB	TYR	B	294	38.861	10.398	68.098	1.00	32.22
ATOM	4584	CG	TYR	B	294	38.628	10.021	66.650	1.00	42.38
ATOM	4585	CD1	TYR	B	294	39.072	10.848	65.621	1.00	43.00
ATOM	4586	CE1	TYR	B	294	38.867	10.520	64.294	1.00	47.37
ATOM	4587	CZ	TYR	B	294	38.207	9.350	63.975	1.00	48.16
ATOM	4588	OH	TYR	B	294	38.001	9.025	62.651	1.00	34.98
ATOM	4589	CE2	TYR	B	294	37.756	8.516	64.976	1.00	41.30
ATOM	4590	CD2	TYR	B	294	37.966	8.851	66.302	1.00	40.38
ATOM	4591	C	TYR	B	294	36.628	11.405	68.664	1.00	32.24
ATOM	4592	O	TYR	B	294	35.800	11.862	67.885	1.00	38.08
ATOM	4593	N	VAL	B	295	36.302	10.647	69.711	1.00	45.53
ATOM	4594	CA	VAL	B	295	34.926	10.315	70.045	1.00	44.59
ATOM	4595	CB	VAL	B	295	34.844	9.467	71.331	1.00	40.45
ATOM	4596	CG1	VAL	B	295	33.478	9.640	71.975	1.00	39.76
ATOM	4597	CG2	VAL	B	295	35.134	8.009	71.030	1.00	42.13
ATOM	4598	C	VAL	B	295	34.096	11.573	70.258	1.00	43.22
ATOM	4599	O	VAL	B	295	32.963	11.696	69.798	1.00	39.21
ATOM	4600	N	TYR	B	296	34.680	12.529	70.983	1.00	39.28
ATOM	4601	CA	TYR	B	296	33.973	13.791	71.204	1.00	38.11
ATOM	4602	CB	TYR	B	296	34.866	14.740	72.004	1.00	36.49
ATOM	4603	CG	TYR	B	296	34.235	16.065	72.341	1.00	29.43
ATOM	4604	CD1	TYR	B	296	33.274	16.182	73.337	1.00	26.96
ATOM	4605	CE1	TYR	B	296	32.688	17.392	73.655	1.00	26.29
ATOM	4606	CZ	TYR	B	296	33.072	18.524	72.963	1.00	36.48
ATOM	4607	OH	TYR	B	296	32.503	19.739	73.267	1.00	28.44
ATOM	4608	CE2	TYR	B	296	34.023	18.443	71.970	1.00	34.08
ATOM	4609	CD2	TYR	B	296	34.602	17.224	71.661	1.00	38.40
ATOM	4610	C	TYR	B	296	33.582	14.431	69.883	1.00	30.28
ATOM	4611	O	TYR	B	296	32.516	15.027	69.739	1.00	28.21
ATOM	4612	N	LEU	B	297	34.477	14.309	68.896	1.00	32.45
ATOM	4613	CA	LEU	B	297	34.172	14.905	67.592	1.00	29.13
ATOM	4614	CB	LEU	B	297	35.329	14.627	66.633	1.00	28.47
ATOM	4615	CG	LEU	B	297	36.560	15.523	66.842	1.00	31.47
ATOM	4616	CD1	LEU	B	297	37.742	14.998	66.052	1.00	24.45
ATOM	4617	CD2	LEU	B	297	36.235	16.958	66.462	1.00	26.38
ATOM	4618	C	LEU	B	297	32.852	14.378	67.039	1.00	34.78
ATOM	4619	O	LEU	B	297	31.967	15.133	66.639	1.00	26.92
ATOM	4620	N	HIS	B	298	32.719	13.055	67.036	1.00	42.39
ATOM	4621	CA	HIS	B	298	31.505	12.405	66.536	1.00	42.94
ATOM	4622	CB	HIS	B	298	31.714	10.888	66.528	1.00	40.75
ATOM	4623	CG	HIS	B	298	32.747	10.427	65.545	1.00	42.36
ATOM	4624	ND1	HIS	B	298	34.085	10.309	65.850	1.00	43.84
ATOM	4625	CE1	HIS	B	298	34.758	9.881	64.795	1.00	39.31
ATOM	4626	NE2	HIS	B	298	33.901	9.708	63.804	1.00	42.05
ATOM	4627	CD2	HIS	B	298	32.640	10.043	64.249	1.00	43.47

**FIGURE 191**

ATOM	4628	C	HIS	B	298	30.278	12.791	67.348	1.00	35.51	
ATOM	4629	O	HIS	B	298	29.192	12.997	66.800	1.00	32.51	
ATOM	4630	N	GLN	B	299	30.409	12.916	68.669	1.00	33.21	
ATOM	4631	CA	GLN	B	299	29.266	13.336	69.483	1.00	33.23	
ATOM	4632	CB	GLN	B	299	29.581	13.264	70.982	1.00	40.20	
ATOM	4633	CG	GLN	B	299	30.119	11.919	71.443	1.00	49.41	
ATOM	4634	CD	GLN	B	299	30.348	11.829	72.937	1.00	54.91	
ATOM	4635	OE1	GLN	B	299	31.345	12.313	73.477	1.00	54.96	
ATOM	4636	NE2	GLN	B	299	29.412	11.192	73.633	1.00	62.12	
ATOM	4637	C	GLN	B	299	28.826	14.743	69.114	1.00	32.95	
ATOM	4638	O	GLN	B	299	27.638	15.068	69.089	1.00	41.61	
ATOM	4639	N	CYS	B	300	29.787	15.623	68.810	1.00	32.51	
ATOM	4640	CA	CYS	B	300	29.370	16.967	68.419	1.00	25.41	
ATOM	4641	CB	CYS	B	300	30.603	17.848	68.163	1.00	23.71	
ATOM	4642	SG	CYS	B	300	31.486	18.320	69.679	1.00	41.45	1
ATOM	4643	C	CYS	B	300	28.493	16.946	67.175	1.00	29.79	
ATOM	4644	O	CYS	B	300	27.472	17.628	67.074	1.00	30.90	
ATOM	4645	N	VAL	B	301	28.920	16.157	66.190	1.00	37.78	
ATOM	4646	CA	VAL	B	301	28.176	16.043	64.943	1.00	31.92	
ATOM	4647	CB	VAL	B	301	28.938	15.212	63.899	1.00	35.00	
ATOM	4648	CG1	VAL	B	301	28.024	14.868	62.728	1.00	40.94	
ATOM	4649	CG2	VAL	B	301	30.179	15.957	63.430	1.00	37.17	
ATOM	4650	C	VAL	B	301	26.819	15.404	65.220	1.00	27.85	
ATOM	4651	O	VAL	B	301	25.795	15.854	64.720	1.00	36.79	
ATOM	4652	N	ARG	B	302	26.825	14.349	66.036	1.00	42.30	
ATOM	4653	CA	ARG	B	302	25.557	13.697	66.370	1.00	48.19	
ATOM	4654	CB	ARG	B	302	25.771	12.523	67.322	1.00	48.82	
ATOM	4655	CG	ARG	B	302	24.477	11.943	67.886	1.00	51.72	
ATOM	4656	CD	ARG	B	302	24.723	11.322	69.253	1.00	57.09	
ATOM	4657	NE	ARG	B	302	24.895	12.340	70.291	1.00	63.02	
ATOM	4658	CZ	ARG	B	302	25.940	12.384	71.110	1.00	68.57	
ATOM	4659	NH1	ARG	B	302	26.895	11.472	71.013	1.00	88.06	
ATOM	4660	NH2	ARG	B	302	26.046	13.329	72.036	1.00	62.92	
ATOM	4661	C	ARG	B	302	24.599	14.715	66.979	1.00	52.02	
ATOM	4662	O	ARG	B	302	23.481	14.911	66.506	1.00	55.97	
ATOM	4663	N	ASP	B	303	25.064	15.381	68.036	1.00	43.78	
ATOM	4664	CA	ASP	B	303	24.206	16.380	68.673	1.00	41.33	
ATOM	4665	CB	ASP	B	303	24.923	16.943	69.911	1.00	45.65	
ATOM	4666	CG	ASP	B	303	25.039	15.864	70.980	1.00	50.16	
ATOM	4667	OD1	ASP	B	303	24.298	14.861	70.855	1.00	45.98	
ATOM	4668	OD2	ASP	B	303	25.846	15.982	71.927	1.00	34.68	
ATOM	4669	C	ASP	B	303	23.795	17.459	67.691	1.00	40.46	
ATOM	4670	O	ASP	B	303	22.662	17.955	67.734	1.00	56.09	
ATOM	4671	N	VAL	B	304	24.662	17.874	66.763	1.00	34.45	
ATOM	4672	CA	VAL	B	304	24.201	18.942	65.868	1.00	48.95	
ATOM	4673	CB	VAL	B	304	25.351	19.587	65.075	1.00	49.79	
ATOM	4674	CG1	VAL	B	304	24.862	20.185	63.765	1.00	28.51	
ATOM	4675	CG2	VAL	B	304	26.027	20.662	65.919	1.00	59.44	
ATOM	4676	C	VAL	B	304	23.143	18.410	64.907	1.00	54.85	
ATOM	4677	O	VAL	B	304	22.147	19.072	64.611	1.00	47.47	
ATOM	4678	N	LEU	B	305	23.356	17.194	64.408	1.00	51.63	
ATOM	4679	CA	LEU	B	305	22.375	16.636	63.478	1.00	51.67	

**FIGURE 192**

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ATOM	4680	CB	LEU	B	305	22.844	15.260	62.996	1.00	41.22
ATOM	4681	CG	LEU	B	305	24.018	15.265	62.015	1.00	34.32
ATOM	4682	CD1	LEU	B	305	24.215	13.904	61.375	1.00	47.80
ATOM	4683	CD2	LEU	B	305	23.809	16.325	60.944	1.00	28.65
ATOM	4684	C	LEU	B	305	21.001	16.567	64.128	1.00	56.67
ATOM	4685	O	LEU	B	305	20.041	17.177	63.650	1.00	54.42
ATOM	4686	N	ARG	B	306	20.874	15.835	65.235	1.00	57.52
ATOM	4687	CA	ARG	B	306	19.539	15.658	65.806	1.00	66.45
ATOM	4688	CB	ARG	B	306	19.575	14.723	67.019	1.00	67.88
ATOM	4689	CG	ARG	B	306	20.951	14.533	67.625	1.00	72.91
ATOM	4690	CD	ARG	B	306	20.877	14.354	69.133	1.00	75.55
ATOM	4691	NE	ARG	B	306	21.300	13.007	69.521	1.00	78.32
ATOM	4692	CZ	ARG	B	306	21.914	12.752	70.670	1.00	79.74
ATOM	4693	NH1	ARG	B	306	22.161	13.748	71.509	1.00	73.02
ATOM	4694	NH2	ARG	B	306	22.275	11.514	70.971	1.00	90.52
ATOM	4695	C	ARG	B	306	18.884	16.972	66.211	1.00	65.71
ATOM	4696	O	ARG	B	306	17.651	17.050	66.270	1.00	60.57
ATOM	4697	N	ALA	B	307	19.674	18.000	66.503	1.00	63.41
ATOM	4698	CA	ALA	B	307	19.082	19.268	66.929	1.00	60.95
ATOM	4699	CB	ALA	B	307	20.137	20.143	67.585	1.00	47.72
ATOM	4700	C	ALA	B	307	18.413	19.987	65.760	1.00	65.50
ATOM	4701	O	ALA	B	307	17.285	20.470	65.877	1.00	57.65
ATOM	4702	N	ARG	B	308	19.113	20.054	64.634	1.00	73.88
ATOM	4703	CA	ARG	B	308	18.601	20.681	63.421	1.00	83.95
ATOM	4704	CB	ARG	B	308	19.685	20.718	62.342	1.00	82.20
ATOM	4705	CG	ARG	B	308	21.069	21.087	62.860	1.00	81.07
ATOM	4706	CD	ARG	B	308	22.138	20.840	61.803	1.00	76.97
ATOM	4707	NE	ARG	B	308	21.546	20.677	60.482	1.00	76.87
ATOM	4708	CZ	ARG	B	308	22.159	20.442	59.337	1.00	74.18
ATOM	4709	NH1	ARG	B	308	23.476	20.316	59.248	1.00	57.78
ATOM	4710	NH2	ARG	B	308	21.427	20.324	58.233	1.00	64.71
ATOM	4711	C	ARG	B	308	17.365	19.943	62.917	1.00	92.86
ATOM	4712	O	ARG	B	308	16.278	20.515	62.815	1.00	85.75
ATOM	4713	N	LYS	B	309	17.535	18.658	62.606	1.00	97.18
ATOM	4714	CA	LYS	B	309	16.407	17.851	62.152	1.00	101.48
ATOM	4715	CB	LYS	B	309	16.828	16.414	61.850	1.00	103.32
ATOM	4716	CG	LYS	B	309	15.687	15.410	61.805	1.00	104.02
ATOM	4717	CD	LYS	B	309	15.273	15.077	60.382	1.00	104.29
ATOM	4718	CE	LYS	B	309	13.920	14.382	60.342	1.00	101.24
ATOM	4719	NZ	LYS	B	309	13.811	13.409	59.216	1.00	84.67
ATOM	4720	C	LYS	B	309	15.292	17.866	63.202	1.00	101.41
ATOM	4721	O	LYS	B	309	15.282	16.996	64.071	1.00	109.20
ATOM	4722	N	LEU	B	310	14.415	18.846	63.079	1.00	97.60
ATOM	4723	CA	LEU	B	310	13.251	19.077	63.916	1.00	95.62
ATOM	4724	CB	LEU	B	310	13.533	18.739	65.380	1.00	95.83
ATOM	4725	CG	LEU	B	310	13.082	17.359	65.866	1.00	98.74
ATOM	4726	CD1	LEU	B	310	12.607	16.487	64.713	1.00	84.93
ATOM	4727	CD2	LEU	B	310	14.202	16.667	66.632	1.00	113.56
ATOM	4728	C	LEU	B	310	12.786	20.528	63.789	1.00	92.71
ATOM	4729	O	LEU	B	310	12.515	21.222	64.765	1.00	74.63
ATOM	4730	O14	INH	Z	2	55.288	16.173	78.572	1.00	68.22
ATOM	4731	O4	INH	Z	2	48.070	20.932	75.258	1.00	24.37

**FIGURE 193**

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ATOM	4732	S1	INH	Z	2	47.385	19.830	74.500	1.00	29.84	1
ATOM	4733	O2	INH	Z	2	48.097	19.600	73.249	1.00	23.28	
ATOM	4734	O3	INH	Z	2	45.976	19.785	74.420	1.00	19.75	
ATOM	4735	N1	INH	Z	2	47.628	18.601	75.423	1.00	29.61	
ATOM	4736	C2	INH	Z	2	48.913	18.097	75.576	1.00	22.41	
ATOM	4737	C1	INH	Z	2	49.706	18.569	76.616	1.00	17.58	
ATOM	4738	C3	INH	Z	2	49.439	17.157	74.694	1.00	25.75	
ATOM	4739	C4	INH	Z	2	50.726	16.698	74.879	1.00	21.37	
ATOM	4740	C5	INH	Z	2	51.537	17.205	75.894	1.00	28.97	
ATOM	4741	C6	INH	Z	2	50.996	18.159	76.786	1.00	18.78	
ATOM	4742	C8	INH	Z	2	52.976	16.759	76.061	1.00	30.10	
ATOM	4743	C7	INH	Z	2	53.147	15.585	77.076	1.00	38.47	
ATOM	4744	C9	INH	Z	2	52.112	14.479	76.942	1.00	50.15	
ATOM	4745	N2	INH	Z	2	52.210	13.593	75.955	1.00	46.78	
ATOM	4746	C10	INH	Z	2	51.114	12.942	75.276	1.00	48.01	
ATOM	4747	O1	INH	Z	2	51.204	14.431	77.757	1.00	53.75	
ATOM	4748	N11	INH	Z	2	53.037	16.040	78.545	1.00	43.33	
ATOM	4749	C12	INH	Z	2	54.320	16.516	79.194	1.00	55.88	
ATOM	4750	O6	INH	Z	2	54.055	17.245	80.374	1.00	62.18	
ATOM	4751	C13	INH	Z	2	55.182	17.437	81.254	1.00	68.88	
ATOM	4752	C14	INH	Z	2	55.890	18.762	81.044	1.00	69.79	
ATOM	4753	C15	INH	Z	2	57.051	18.833	80.275	1.00	67.74	
ATOM	4754	C16	INH	Z	2	57.681	20.064	80.042	1.00	70.03	
ATOM	4755	C17	INH	Z	2	57.152	21.249	80.558	1.00	70.11	
ATOM	4756	C18	INH	Z	2	55.999	21.166	81.352	1.00	69.36	
ATOM	4757	C19	INH	Z	2	55.377	19.934	81.606	1.00	69.79	
ATOM	4758	O14	INH	Z	1	-1.113	8.871	44.215	1.00	38.80	
ATOM	4759	O4	INH	Z	1	6.622	4.171	41.248	1.00	25.08	
ATOM	4760	S1	INH	Z	1	7.335	5.325	40.618	1.00	22.22	1
ATOM	4761	O2	INH	Z	1	6.828	5.548	39.260	1.00	16.51	
ATOM	4762	O3	INH	Z	1	8.747	5.431	40.711	1.00	19.75	
ATOM	4763	N1	INH	Z	1	6.835	6.493	41.497	1.00	20.76	
ATOM	4764	C2	INH	Z	1	5.527	6.957	41.421	1.00	21.28	
ATOM	4765	C1	INH	Z	1	4.584	6.427	42.291	1.00	13.44	
ATOM	4766	C3	INH	Z	1	5.132	7.960	40.530	1.00	21.95	
ATOM	4767	C4	INH	Z	1	3.817	8.382	40.524	1.00	18.36	
ATOM	4768	C5	INH	Z	1	2.870	7.861	41.415	1.00	23.03	
ATOM	4769	C6	INH	Z	1	3.283	6.862	42.323	1.00	16.81	
ATOM	4770	C8	INH	Z	1	1.429	8.323	41.430	1.00	24.83	
ATOM	4771	C7	INH	Z	1	1.120	9.380	42.549	1.00	39.39	
ATOM	4772	C9	INH	Z	1	2.120	10.521	42.630	1.00	40.58	
ATOM	4773	N2	INH	Z	1	2.202	11.436	41.667	1.00	41.79	
ATOM	4774	C10	INH	Z	1	3.287	12.393	41.566	1.00	43.35	
ATOM	4775	O1	INH	Z	1	2.868	10.605	43.592	1.00	44.71	
ATOM	4776	N11	INH	Z	1	1.157	8.742	43.948	1.00	50.75	
ATOM	4777	C12	INH	Z	1	-0.086	8.670	44.797	1.00	50.71	
ATOM	4778	O6	INH	Z	1	0.284	8.365	46.128	1.00	57.94	
ATOM	4779	C13	INH	Z	1	-0.788	8.005	47.016	1.00	62.79	
ATOM	4780	C14	INH	Z	1	-1.038	6.513	47.116	1.00	58.14	
ATOM	4781	C15	INH	Z	1	-2.097	5.926	46.420	1.00	57.59	
ATOM	4782	C16	INH	Z	1	-2.357	4.551	46.525	1.00	58.75	
ATOM	4783	C17	INH	Z	1	-1.560	3.742	47.338	1.00	55.57	

**FIGURE 194**

ATOM	4784	C18	INH	Z	1	-0.493	4.337	48.028	1.00	55.37
ATOM	4785	C19	INH	Z	1	-0.220	5.707	47.913	1.00	55.41
ATOM	4786	O1	HOH	W	1	10.045	-6.206	48.501	1.00	9.70
ATOM	4787	O1	HOH	W	2	44.009	31.332	82.099	1.00	12.76
ATOM	4788	O1	HOH	W	3	-1.504	3.025	37.601	1.00	14.12
ATOM	4789	O1	HOH	W	4	56.634	21.887	72.619	1.00	18.84
ATOM	4790	O1	HOH	W	5	-3.336	-2.466	27.653	1.00	16.96
ATOM	4791	O1	HOH	W	6	59.893	27.230	63.111	1.00	20.75
ATOM	4792	O1	HOH	W	7	0.940	7.097	29.426	1.00	15.51
ATOM	4793	O1	HOH	W	8	56.585	29.393	71.563	1.00	17.34
ATOM	4794	O1	HOH	W	9	-3.244	-3.725	34.798	1.00	13.56
ATOM	4795	O1	HOH	W	10	1.553	-4.822	35.953	1.00	13.15
ATOM	4796	O1	HOH	W	11	-4.895	-5.747	33.816	1.00	16.00
ATOM	4797	O1	HOH	W	12	55.065	17.796	64.150	1.00	18.78
ATOM	4798	O1	HOH	W	13	-2.710	7.632	22.526	1.00	25.85
ATOM	4799	O1	HOH	W	14	-1.058	-4.632	36.416	1.00	16.59
ATOM	4800	O1	HOH	W	15	58.883	28.512	70.102	1.00	17.41
ATOM	4801	O1	HOH	W	16	14.129	-11.346	42.224	1.00	25.25
ATOM	4802	O1	HOH	W	17	15.198	-5.722	25.861	1.00	17.95
ATOM	4803	O1	HOH	W	18	-5.309	3.570	27.477	1.00	17.89
ATOM	4804	O1	HOH	W	19	59.756	17.517	57.776	1.00	24.77
ATOM	4805	O1	HOH	W	20	-6.619	-5.980	43.124	1.00	18.09
ATOM	4806	O1	HOH	W	21	54.142	29.809	70.726	1.00	17.84
ATOM	4807	O1	HOH	W	22	0.201	-5.367	22.242	1.00	20.61
ATOM	4808	O1	HOH	W	23	4.276	11.648	28.034	1.00	21.90
ATOM	4809	O1	HOH	W	24	51.995	13.231	62.486	1.00	21.98
ATOM	4810	O1	HOH	W	25	-2.328	13.484	27.320	1.00	20.24
ATOM	4811	O1	HOH	W	26	41.283	24.669	80.924	1.00	23.47
ATOM	4812	O1	HOH	W	27	13.869	-0.367	45.406	1.00	23.14
ATOM	4813	O1	HOH	W	28	15.304	-9.348	27.802	1.00	21.59
ATOM	4814	O1	HOH	W	29	12.631	-10.292	28.093	1.00	20.50
ATOM	4815	O1	HOH	W	30	44.431	39.247	81.240	1.00	25.13
ATOM	4816	O1	HOH	W	31	-0.865	-4.102	45.807	1.00	17.03
ATOM	4817	O1	HOH	W	32	56.944	30.639	57.225	1.00	27.48
ATOM	4818	O1	HOH	W	33	44.974	29.800	84.482	1.00	24.66
ATOM	4819	O1	HOH	W	34	40.344	25.679	78.385	1.00	25.40
ATOM	4820	O1	HOH	W	35	-0.817	11.896	36.268	1.00	27.05
ATOM	4821	O1	HOH	W	36	45.813	26.347	88.982	1.00	29.74
ATOM	4822	O1	HOH	W	37	61.459	21.495	62.950	1.00	24.86
ATOM	4823	O1	HOH	W	38	61.161	30.493	78.889	1.00	24.20
ATOM	4824	O1	HOH	W	39	18.380	-0.097	25.182	1.00	20.65
ATOM	4825	O1	HOH	W	40	51.721	30.553	83.500	1.00	23.95
ATOM	4826	O1	HOH	W	41	44.911	34.060	54.571	1.00	25.17
ATOM	4827	O1	HOH	W	42	55.088	28.823	80.613	1.00	20.78
ATOM	4828	O1	HOH	W	43	38.439	25.424	57.676	1.00	24.32
ATOM	4829	O1	HOH	W	44	17.651	-4.708	24.960	1.00	23.35
ATOM	4830	O1	HOH	W	45	60.668	30.480	69.410	1.00	20.33
ATOM	4831	O1	HOH	W	46	10.176	-14.189	47.531	1.00	30.12
ATOM	4832	O1	HOH	W	47	-0.430	-5.789	47.698	1.00	31.64
ATOM	4833	O1	HOH	W	48	49.454	24.259	54.551	1.00	24.40
ATOM	4834	O1	HOH	W	49	8.659	-4.775	50.631	1.00	26.30
ATOM	4835	O1	HOH	W	50	8.016	-21.216	43.873	1.00	28.15

**FIGURE 195**

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ATOM	4836	O1	HOH	W	51	41.695	31.267	59.043	1.00	30.73
ATOM	4837	O1	HOH	W	52	0.050	1.522	45.671	1.00	24.08
ATOM	4838	O1	HOH	W	53	9.328	8.423	41.215	1.00	24.60
ATOM	4839	O1	HOH	W	54	18.246	-7.424	47.752	1.00	27.95
ATOM	4840	O1	HOH	W	55	17.680	-18.968	48.425	1.00	49.05
ATOM	4841	O1	HOH	W	56	63.663	32.033	67.334	1.00	33.07
ATOM	4842	O1	HOH	W	57	12.879	-8.580	21.032	1.00	30.73
ATOM	4843	O1	HOH	W	58	43.952	35.751	61.678	1.00	24.11
ATOM	4844	O1	HOH	W	59	5.457	2.609	21.937	1.00	33.95
ATOM	4845	O1	HOH	W	60	41.656	34.732	60.883	1.00	26.67
ATOM	4846	O1	HOH	W	61	10.826	-7.011	21.512	1.00	26.24
ATOM	4847	O1	HOH	W	62	46.866	32.271	55.142	1.00	28.91
ATOM	4848	O1	HOH	W	63	-4.848	-11.748	39.346	1.00	22.84
ATOM	4849	O1	HOH	W	64	-1.807	-15.828	33.871	1.00	27.34
ATOM	4850	O1	HOH	W	65	15.309	-8.364	24.800	1.00	25.02
ATOM	4851	O1	HOH	W	66	10.589	-3.957	17.825	1.00	26.51
ATOM	4852	O1	HOH	W	67	53.967	24.496	54.681	1.00	44.06
ATOM	4853	O1	HOH	W	68	24.990	-11.936	38.629	1.00	28.80
ATOM	4854	O1	HOH	W	69	7.664	0.885	20.675	1.00	28.07
ATOM	4855	O1	HOH	W	70	59.900	18.836	77.896	1.00	40.35
ATOM	4856	O1	HOH	W	71	45.172	16.962	74.854	1.00	28.34
ATOM	4857	O1	HOH	W	72	-7.743	-7.173	31.484	1.00	26.07
ATOM	4858	O1	HOH	W	73	62.769	33.034	57.586	1.00	26.41
ATOM	4859	O1	HOH	W	74	1.944	-14.302	44.406	1.00	26.86
ATOM	4860	O1	HOH	W	75	23.222	-0.340	29.959	1.00	22.19
ATOM	4861	O1	HOH	W	76	-0.197	-0.646	21.222	1.00	27.09
ATOM	4862	O1	HOH	W	77	42.078	33.736	57.956	1.00	26.98
ATOM	4863	O1	HOH	W	78	57.402	25.819	56.138	1.00	32.63
ATOM	4864	O1	HOH	W	79	55.439	12.986	71.228	1.00	29.87
ATOM	4865	O1	HOH	W	80	34.396	8.529	61.576	1.00	43.51
ATOM	4866	O1	HOH	W	81	47.286	29.177	51.681	1.00	31.35
ATOM	4867	O1	HOH	W	82	30.677	31.060	77.998	1.00	47.26
ATOM	4868	O1	HOH	W	83	41.588	15.444	81.328	1.00	41.21
ATOM	4869	O1	HOH	W	84	2.486	5.248	46.367	1.00	34.85
ATOM	4870	O1	HOH	W	85	63.709	21.021	72.928	1.00	28.76
ATOM	4871	O1	HOH	W	86	27.619	8.328	44.050	1.00	31.73
ATOM	4872	O1	HOH	W	87	-5.332	-10.734	36.523	1.00	25.53
ATOM	4873	O1	HOH	W	88	62.256	24.240	57.795	1.00	27.98
ATOM	4874	O1	HOH	W	89	7.339	-1.362	55.174	1.00	27.75
ATOM	4875	O1	HOH	W	90	-3.541	-2.818	46.374	1.00	29.31
ATOM	4876	O1	HOH	W	91	12.753	0.559	47.705	1.00	25.52
ATOM	4877	O1	HOH	W	92	52.949	39.174	79.040	1.00	31.30
ATOM	4878	O1	HOH	W	93	36.070	32.961	80.601	1.00	30.93
ATOM	4879	O1	HOH	W	94	59.810	36.762	74.769	1.00	30.79
ATOM	4880	O1	HOH	W	95	-12.875	5.864	27.849	1.00	26.59
ATOM	4881	O1	HOH	W	96	53.121	29.855	85.728	1.00	31.07
ATOM	4882	O1	HOH	W	97	51.540	25.787	52.492	1.00	31.52
ATOM	4883	O1	HOH	W	98	18.594	-19.849	45.929	1.00	43.83
ATOM	4884	O1	HOH	W	99	-1.532	-18.000	43.060	1.00	30.93
ATOM	4885	O1	HOH	W	100	42.535	36.857	53.627	1.00	38.22
ATOM	4886	O1	HOH	W	101	56.933	34.861	60.367	1.00	32.82
ATOM	4887	O1	HOH	W	102	25.851	-1.470	29.859	1.00	36.64

**FIGURE 196**



ATOM	4888	O1	HOH W 103	0.077	-10.003	25.584	1.00	32.46
ATOM	4889	O1	HOH W 104	6.037	-0.243	18.292	1.00	42.47
ATOM	4890	O1	HOH W 105	-5.627	-8.277	21.845	1.00	34.15
ATOM	4891	O1	HOH W 106	4.857	13.360	30.883	1.00	31.69
ATOM	4892	O1	HOH W 107	5.308	15.537	21.988	1.00	25.42
ATOM	4893	O1	HOH W 108	6.752	-6.565	51.673	1.00	33.36
ATOM	4894	O1	HOH W 109	58.057	40.591	69.174	1.00	29.89
ATOM	4895	O1	HOH W 110	58.754	7.470	62.072	1.00	35.42
ATOM	4896	O1	HOH W 111	3.972	1.588	20.509	1.00	37.26
ATOM	4897	O1	HOH W 112	53.197	17.249	55.411	1.00	35.13
ATOM	4898	O1	HOH W 113	36.243	21.471	51.543	1.00	48.69
ATOM	4899	O1	HOH W 114	-0.096	-4.011	20.309	1.00	39.42
ATOM	4900	O1	HOH W 115	49.696	32.306	84.528	1.00	35.44
ATOM	4901	O1	HOH W 116	16.010	-16.452	31.337	1.00	44.52
ATOM	4902	O1	HOH W 117	54.391	30.745	82.842	1.00	30.52
ATOM	4903	O1	HOH W 118	69.018	18.815	64.039	1.00	33.34
ATOM	4904	O1	HOH W 119	39.522	30.110	57.759	1.00	23.80
ATOM	4905	O1	HOH W 120	-10.594	2.764	34.249	1.00	29.91
ATOM	4906	O1	HOH W 121	3.787	-7.512	50.278	1.00	24.62
ATOM	4907	O1	HOH W 122	53.957	23.288	80.378	1.00	30.02
ATOM	4908	O1	HOH W 123	18.987	-16.652	40.990	1.00	30.01
ATOM	4909	O1	HOH W 124	3.080	7.934	45.807	1.00	36.85
ATOM	4910	O1	HOH W 125	55.436	7.031	65.054	1.00	41.50
ATOM	4911	O1	HOH W 126	12.352	9.382	48.476	1.00	33.99
ATOM	4912	O1	HOH W 127	14.471	6.265	26.018	1.00	42.81
ATOM	4913	O1	HOH W 128	43.330	38.653	51.761	1.00	46.93
ATOM	4914	O1	HOH W 129	-5.913	-20.550	38.143	1.00	33.89
ATOM	4915	O1	HOH W 130	20.250	3.300	47.738	1.00	34.00
ATOM	4916	O1	HOH W 131	7.970	-2.668	16.219	1.00	35.55
ATOM	4917	O1	HOH W 132	61.696	45.509	74.227	1.00	35.13
ATOM	4918	O1	HOH W 133	53.846	13.143	73.631	1.00	39.37
ATOM	4919	O1	HOH W 134	29.945	17.996	36.926	1.00	46.09
ATOM	4920	O1	HOH W 135	58.559	11.600	62.402	1.00	26.91
ATOM	4921	O1	HOH W 136	-7.418	-5.438	40.009	1.00	30.49
ATOM	4922	O1	HOH W 137	40.559	41.165	64.176	1.00	45.19
ATOM	4923	O1	HOH W 138	49.766	27.636	50.150	1.00	29.35
ATOM	4924	O1	HOH W 139	65.075	22.379	57.198	1.00	35.09
ATOM	4925	O1	HOH W 140	-8.508	3.715	36.930	1.00	34.08
ATOM	4926	O1	HOH W 141	58.237	33.281	56.920	1.00	33.91
ATOM	4927	O1	HOH W 142	59.723	42.167	67.906	1.00	31.58
ATOM	4928	O1	HOH W 143	62.056	30.740	54.701	1.00	46.78
ATOM	4929	O1	HOH W 144	1.919	3.683	26.777	1.00	58.65
ATOM	4930	O1	HOH W 145	0.229	8.607	19.127	1.00	28.35
ATOM	4931	O1	HOH W 146	12.101	11.343	20.627	1.00	49.67
ATOM	4932	O1	HOH W 147	23.889	-5.655	45.864	1.00	40.68
ATOM	4933	O1	HOH W 148	41.109	26.972	47.802	1.00	38.59
ATOM	4934	O1	HOH W 149	61.067	15.824	56.464	1.00	36.37
ATOM	4935	O1	HOH W 150	53.684	36.619	56.025	1.00	38.94
ATOM	4936	O1	HOH W 151	9.718	4.642	49.998	1.00	29.80
ATOM	4937	O1	HOH W 152	15.016	-11.381	20.564	1.00	35.94
ATOM	4938	O1	HOH W 153	-8.503	6.204	36.690	1.00	33.15
ATOM	4939	O1	HOH W 154	52.945	32.067	87.165	1.00	38.96

**FIGURE 197**

ATOM	4940	O1	HOH W 155	-3.303	-17.298	32.155	1.00	30.64
ATOM	4941	O1	HOH W 156	43.328	22.392	52.292	1.00	47.87
ATOM	4942	O1	HOH W 157	28.970	3.140	30.250	1.00	36.23
ATOM	4943	O1	HOH W 158	26.533	-4.056	30.628	1.00	35.32
ATOM	4944	O1	HOH W 159	3.437	3.324	18.731	1.00	37.41
ATOM	4945	O1	HOH W 160	12.257	5.668	24.272	1.00	33.12
ATOM	4946	O1	HOH W 161	28.150	0.298	30.479	1.00	34.00
ATOM	4947	O1	HOH W 162	-17.348	-19.031	28.122	1.00	36.82
ATOM	4948	O1	HOH W 163	-0.825	-8.283	21.905	1.00	38.81
ATOM	4949	O1	HOH W 164	33.831	22.123	80.266	1.00	41.38
ATOM	4950	O1	HOH W 165	49.420	49.137	70.663	1.00	48.62
ATOM	4951	O1	HOH W 166	50.346	11.884	65.231	1.00	44.32
ATOM	4952	O1	HOH W 167	6.773	13.068	43.904	1.00	50.36
ATOM	4953	O1	HOH W 168	56.962	16.533	53.665	1.00	38.99
ATOM	4954	O1	HOH W 169	19.408	8.728	24.340	1.00	35.51
ATOM	4955	O1	HOH W 170	-5.185	6.989	42.383	1.00	48.15
ATOM	4956	O1	HOH W 171	33.871	8.380	22.002	1.00	42.56
ATOM	4957	O1	HOH W 172	32.356	27.890	84.104	1.00	38.54
ATOM	4958	O1	HOH W 173	-1.961	0.606	20.306	1.00	37.03
ATOM	4959	O1	HOH W 174	62.208	29.832	76.581	1.00	55.22
ATOM	4960	O1	HOH W 175	33.040	26.033	62.143	1.00	33.40
ATOM	4961	O1	HOH W 176	17.532	-14.378	31.456	1.00	33.99
ATOM	4962	O1	HOH W 177	37.206	7.422	74.312	1.00	38.76
ATOM	4963	O1	HOH W 178	29.817	29.620	62.244	1.00	43.78
ATOM	4964	O1	HOH W 179	2.238	-5.806	48.797	1.00	24.11
ATOM	4965	O1	HOH W 180	50.166	25.503	48.673	1.00	31.60
ATOM	4966	O1	HOH W 181	58.506	42.575	64.866	1.00	35.82
ATOM	4967	O1	HOH W 182	66.265	21.921	70.420	1.00	39.64
ATOM	4968	O1	HOH W 183	0.671	-9.941	18.215	1.00	52.37
ATOM	4969	O1	HOH W 184	5.293	12.702	45.868	1.00	64.96
ATOM	4970	O1	HOH W 185	26.178	16.910	42.036	1.00	39.26
ATOM	4971	O1	HOH W 186	1.316	-1.635	54.945	1.00	32.69
ATOM	4972	O1	HOH W 187	15.079	11.723	21.275	1.00	48.90
ATOM	4973	O1	HOH W 188	58.780	8.778	52.598	1.00	55.31
ATOM	4974	O1	HOH W 189	-1.566	-17.744	29.231	1.00	40.69
ATOM	4975	O1	HOH W 190	-1.443	-20.552	29.054	1.00	36.00
ATOM	4976	O1	HOH W 191	40.753	36.433	75.429	1.00	40.90
ATOM	4977	O1	HOH W 192	43.705	20.194	83.394	1.00	38.59
ATOM	4978	O1	HOH W 193	13.952	8.216	50.830	1.00	55.41
ATOM	4979	O1	HOH W 194	17.477	-1.718	14.946	1.00	30.24
ATOM	4980	O1	HOH W 195	32.069	3.048	36.009	1.00	37.45
ATOM	4981	O1	HOH W 196	49.867	21.149	90.949	1.00	40.22
ATOM	4982	O1	HOH W 197	31.011	39.913	82.015	1.00	44.40
ATOM	4983	O1	HOH W 198	3.768	7.854	20.763	1.00	37.31
ATOM	4984	O1	HOH W 199	36.080	45.674	78.448	1.00	51.48
ATOM	4985	O1	HOH W 200	41.126	8.733	35.756	1.00	45.43
ATOM	4986	O1	HOH W 201	-3.605	9.194	21.065	1.00	42.26
ATOM	4987	O1	HOH W 202	45.411	20.667	52.071	1.00	47.75
ATOM	4988	O1	HOH W 203	22.572	-2.433	51.460	1.00	51.25
ATOM	4989	O1	HOH W 204	-2.340	18.437	23.217	1.00	35.94
ATOM	4990	O1	HOH W 205	4.213	5.779	19.058	1.00	42.01
ATOM	4991	O1	HOH W 206	-0.746	1.998	51.309	1.00	32.75

**FIGURE 198**

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ATOM	4992	O1	HOH	W	207	28.139	33.211	71.066	1.00	52.64
ATOM	4993	O1	HOH	W	208	45.744	7.612	66.653	1.00	41.29
ATOM	4994	O1	HOH	W	209	36.066	48.240	71.868	1.00	37.65
ATOM	4995	O1	HOH	W	210	27.068	31.927	66.243	1.00	45.28
ATOM	4996	O1	HOH	W	211	6.224	6.872	49.187	1.00	28.10
ATOM	4997	O1	HOH	W	212	-4.674	3.941	19.505	1.00	49.63
ATOM	4998	O1	HOH	W	213	36.180	26.038	50.897	1.00	39.62
ATOM	4999	O1	HOH	W	214	43.768	26.501	91.776	1.00	47.54
ATOM	5000	O1	HOH	W	215	23.227	-12.725	42.616	1.00	47.18
ATOM	5001	O1	HOH	W	216	-5.818	-21.605	40.616	1.00	37.05
ATOM	5002	O1	HOH	W	217	31.418	-0.721	30.887	1.00	50.68
ATOM	5003	O1	HOH	W	218	30.636	27.485	62.006	1.00	46.74
ATOM	5004	O1	HOH	W	219	26.116	18.310	75.358	1.00	48.38
ATOM	5005	O1	HOH	W	220	1.345	-9.074	48.599	1.00	38.50
ATOM	5006	O1	HOH	W	221	0.416	-1.086	17.311	1.00	48.92
ATOM	5007	O1	HOH	W	222	54.434	21.262	61.419	1.00	42.93
ATOM	5008	O1	HOH	W	223	51.386	9.817	55.916	1.00	33.89
ATOM	5009	O1	HOH	W	224	47.376	31.902	85.186	1.00	47.01
ATOM	5010	O1	HOH	W	225	14.573	9.677	49.224	1.00	33.72
ATOM	5011	O1	HOH	W	226	53.818	34.420	83.299	1.00	40.34
ATOM	5012	O1	HOH	W	227	11.775	4.191	51.814	1.00	46.81
ATOM	5013	O1	HOH	W	228	36.320	19.863	21.440	1.00	41.37
ATOM	5014	O1	HOH	W	229	15.790	10.248	47.362	1.00	37.82
ATOM	5015	O1	HOH	W	230	1.272	11.705	38.927	1.00	32.13
ATOM	5016	O1	HOH	W	231	-7.721	2.573	21.097	1.00	38.10
ATOM	5017	O1	HOH	W	232	53.283	19.471	53.553	1.00	38.71
ATOM	5018	O1	HOH	W	233	51.950	32.548	55.051	1.00	30.33
ATOM	5019	O1	HOH	W	234	58.877	41.394	62.179	1.00	45.27
ATOM	5020	O1	HOH	W	235	-8.538	-1.081	21.839	1.00	39.11
ATOM	5021	O1	HOH	W	236	-0.733	4.812	51.216	1.00	41.83
ATOM	5022	O1	HOH	W	237	60.623	35.681	72.217	1.00	39.90
ATOM	5023	O1	HOH	W	238	57.744	28.339	55.220	1.00	37.07
ATOM	5024	O1	HOH	W	239	59.092	12.614	50.910	1.00	48.79
ATOM	5025	O1	HOH	W	240	68.091	31.724	68.601	1.00	34.66
ATOM	5026	O1	HOH	W	241	63.691	18.438	72.638	1.00	33.62
ATOM	5027	O1	HOH	W	242	53.127	41.929	58.612	1.00	47.21
ATOM	5028	O1	HOH	W	243	1.457	-17.227	23.707	1.00	48.59
ATOM	5029	O1	HOH	W	244	44.599	4.374	53.989	1.00	55.66
ATOM	5030	O1	HOH	W	245	-2.827	19.837	25.584	1.00	44.10
ATOM	5031	O1	HOH	W	246	22.401	-9.408	51.289	1.00	46.21
ATOM	5032	O1	HOH	W	247	-7.242	-11.447	30.436	1.00	45.75
ATOM	5033	O1	HOH	W	248	35.419	11.112	74.634	1.00	40.36
ATOM	5034	O1	HOH	W	249	49.132	5.615	57.803	1.00	41.51
ATOM	5035	O1	HOH	W	250	-12.594	4.646	35.004	1.00	44.27
ATOM	5036	O1	HOH	W	251	-12.226	3.502	24.096	1.00	53.57
ATOM	5037	O1	HOH	W	252	49.280	12.394	79.591	1.00	54.74
ATOM	5038	O1	HOH	W	253	44.128	17.693	48.227	1.00	50.05
ATOM	5039	O1	HOH	W	254	2.013	-8.971	51.042	1.00	34.88
ATOM	5040	O1	HOH	W	255	29.402	-6.675	32.345	1.00	54.78
ATOM	5041	O1	HOH	W	256	43.680	17.273	82.570	1.00	36.27
ATOM	5042	O1	HOH	W	257	31.835	-0.971	66.953	1.00	53.67
ATOM	5043	O1	HOH	W	258	34.738	9.985	59.599	1.00	38.24

**FIGURE 199**

ATOM	5044	O1	HOH W 259	52.495	11.009	53.739	1.00	47.65
ATOM	5045	O1	HOH W 260	0.140	-7.165	52.324	1.00	48.04
ATOM	5046	O1	HOH W 261	64.908	25.810	56.847	1.00	47.20
ATOM	5047	O1	HOH W 262	54.501	32.978	55.500	1.00	42.65
ATOM	5048	O1	HOH W 263	38.723	39.573	64.125	1.00	44.25
ATOM	5049	O1	HOH W 264	60.016	5.683	60.372	1.00	39.48
ATOM	5050	O1	HOH W 265	41.596	40.187	50.813	1.00	39.03
ATOM	5051	O1	HOH W 266	9.560	17.462	32.534	1.00	35.34
ATOM	5052	O1	HOH W 267	3.163	-20.952	48.609	1.00	33.97
ATOM	5053	O1	HOH W 268	16.265	18.009	17.553	1.00	51.71
ATOM	5054	O1	HOH W 269	22.132	26.469	35.632	1.00	49.25
ATOM	5055	O1	HOH W 270	0.202	17.702	30.444	1.00	39.18
ATOM	5056	O1	HOH W 271	28.128	10.379	42.510	1.00	41.98
ATOM	5057	O1	HOH W 272	19.729	-16.688	38.739	1.00	29.83
ATOM	5058	O1	HOH W 273	37.288	16.310	56.333	1.00	54.08
ATOM	5059	O1	HOH W 274	26.953	23.484	61.752	1.00	50.25
ATOM	5060	O1	HOH W 275	44.052	42.974	56.507	1.00	45.06
ATOM	5061	O1	HOH W 276	25.652	3.648	70.742	1.00	42.16
ATOM	5062	O1	HOH W 277	1.252	3.132	54.632	1.00	46.31
ATOM	5063	O1	HOH W 278	52.770	49.829	63.294	1.00	42.77
ATOM	5064	O1	HOH W 279	-2.597	8.623	42.111	1.00	42.65
ATOM	5065	O1	HOH W 280	2.122	-5.441	52.479	1.00	50.02
ATOM	5066	O1	HOH W 281	51.073	19.397	80.420	1.00	48.41
ATOM	5067	O1	HOH W 282	22.162	16.861	29.165	1.00	44.50
ATOM	5068	O1	HOH W 283	11.469	25.200	29.589	1.00	50.84
ATOM	5069	O1	HOH W 284	23.699	3.262	46.867	1.00	46.89
ATOM	5070	O1	HOH W 285	45.993	9.491	73.544	1.00	47.59
ATOM	5071	O1	HOH W 286	34.089	35.336	54.479	1.00	49.25
ATOM	5072	O1	HOH W 287	27.009	-10.733	37.488	1.00	33.68
ATOM	5073	O1	HOH W 288	52.692	21.442	83.608	1.00	42.65
ATOM	5074	O1	HOH W 289	31.129	22.350	28.703	1.00	42.85
ATOM	5075	O1	HOH W 290	36.979	25.478	48.592	1.00	35.15
ATOM	5076	O1	HOH W 291	59.056	24.357	55.498	1.00	42.95
ATOM	5077	O1	HOH W 292	45.058	19.677	57.915	1.00	35.81
ATOM	5078	O1	HOH W 293	27.531	31.666	63.768	1.00	55.59
ATOM	5079	O1	HOH W 294	15.733	8.228	20.545	1.00	55.53
ATOM	5080	O1	HOH W 295	21.402	1.241	51.437	1.00	51.66
ATOM	5081	O1	HOH W 296	24.337	-2.308	23.410	1.00	40.84
ATOM	5082	O1	HOH W 297	45.597	49.644	86.607	1.00	60.74
ATOM	5083	O1	HOH W 298	48.392	7.844	54.894	1.00	40.30
ATOM	5084	O1	HOH W 299	10.706	-0.247	53.887	1.00	36.83
ATOM	5085	O1	HOH W 300	30.841	6.772	42.114	1.00	46.90
ATOM	5086	O1	HOH W 301	56.984	31.594	84.598	1.00	64.61
ATOM	5087	O1	HOH W 302	23.975	0.753	21.900	1.00	58.72
ATOM	5088	O1	HOH W 303	25.943	-3.970	26.011	1.00	34.27
ATOM	5089	O1	HOH W 304	57.745	27.571	81.771	1.00	39.39
ATOM	5090	O1	HOH W 305	8.725	13.816	46.139	1.00	62.61
ATOM	5091	O1	HOH W 306	9.642	-2.831	53.313	1.00	48.15
ATOM	5092	O1	HOH W 307	-12.355	-6.712	32.342	1.00	40.12
ATOM	5093	O1	HOH W 308	10.024	7.396	49.256	1.00	37.70
ATOM	5094	O1	HOH W 309	41.071	3.104	32.909	1.00	61.81
ATOM	5095	O1	HOH W 310	60.474	28.281	80.505	1.00	58.55

FIGURE 200

ATOM	5096	O1	HOH W 311	-0.719	1.660	54.184	1.00	46.99
ATOM	5097	O1	HOH W 312	42.157	0.641	32.043	1.00	61.15
ATOM	5098	O1	HOH W 313	26.844	31.094	74.091	1.00	57.31
ATOM	5099	O1	HOH W 314	7.696	11.428	47.893	1.00	49.96
ATOM	5100	O1	HOH W 315	54.048	21.906	53.414	1.00	50.41
ATOM	5101	O1	HOH W 316	47.093	3.308	57.181	1.00	49.89
ATOM	5102	O1	HOH W 317	0.538	11.547	46.107	1.00	65.71
ATOM	5103	O1	HOH W 318	8.860	16.730	39.751	1.00	67.14
ATOM	5104	O1	HOH W 319	17.788	-19.138	29.587	1.00	65.65
ATOM	5105	O1	HOH W 320	19.712	14.524	17.149	1.00	66.48
ATOM	5106	O1	HOH W 321	-1.219	-11.550	22.358	1.00	64.74
ATOM	5107	O1	HOH W 322	6.040	14.352	34.149	1.00	62.82
ATOM	5108	O1	HOH W 323	65.030	28.876	55.181	1.00	54.52
ATOM	5109	O1	HOH W 324	41.175	4.830	36.570	1.00	59.29
ATOM	5110	O1	HOH W 325	15.916	-2.843	51.316	1.00	58.50
ATOM	5111	O1	HOH W 326	21.478	17.683	70.720	1.00	50.48
END								

**FIGURE 201**

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CRYST1	39.250	71.126	119.912	90.00	90.00	90.00		
ATOM	1	N	LYS	A	19	-12.134	41.491	10.114 1.000 47.16
ATOM	2	CA	LYS	A	19	-12.088	40.464	9.085 1.000 46.31
ATOM	3	CB	LYS	A	19	-11.200	40.822	7.902 1.000 46.34
ATOM	4	CG	LYS	A	19	-9.707	40.790	8.149 1.000 42.97
ATOM	5	CD	LYS	A	19	-8.945	40.965	6.847 1.000 43.94
ATOM	6	CE	LYS	A	19	-7.609	41.670	7.059 1.000 39.13
ATOM	7	NZ	LYS	A	19	-6.732	41.562	5.856 1.000 48.25
ATOM	8	C	LYS	A	19	-11.602	39.144	9.702 1.000 47.15
ATOM	9	O	LYS	A	19	-10.921	39.174	10.723 1.000 50.63
ATOM	10	N	THR	A	20	-11.999	38.090	9.024 1.000 38.61
ATOM	11	CA	THR	A	20	-11.875	36.698	9.401 1.000 42.80
ATOM	12	CB	THR	A	20	-13.310	36.133	9.502 1.000 46.49
ATOM	13	OG1	THR	A	20	-13.660	36.080	10.896 1.000 54.76
ATOM	14	CG2	THR	A	20	-13.393	34.742	8.933 1.000 40.58
ATOM	15	C	THR	A	20	-11.069	35.879	8.414 1.000 38.96
ATOM	16	O	THR	A	20	-10.606	34.774	8.695 1.000 26.83
ATOM	17	N	SER	A	21	-10.899	36.432	7.211 1.000 27.43
ATOM	18	CA	SER	A	21	-10.213	35.731	6.137 1.000 21.10
ATOM	19	CB	SER	A	21	-11.193	34.767	5.449 1.000 34.39
ATOM	20	OG	SER	A	21	-10.929	34.678	4.055 1.000 44.20
ATOM	21	C	SER	A	21	-9.647	36.730	5.144 1.000 25.82
ATOM	22	O	SER	A	21	-10.151	37.858	5.158 1.000 39.09
ATOM	23	N	CYS	A	22	-8.669	36.373	4.325 1.000 26.63
ATOM	24	CA	CYS	A	22	-8.080	37.358	3.404 1.000 29.32
ATOM	25	CB	CYS	A	22	-7.041	38.266	4.056 1.000 29.54
ATOM	26	SG	CYS	A	22	-6.599	39.770	3.116 1.000 40.23
ATOM	27	C	CYS	A	22	-7.445	36.575	2.264 1.000 28.58
ATOM	28	O	CYS	A	22	-6.219	36.546	2.161 1.000 36.15
ATOM	29	N	PRO	A	23	-8.315	35.942	1.482 1.000 31.23
ATOM	30	CA	PRO	A	23	-7.853	35.032	0.450 1.000 28.72
ATOM	31	CB	PRO	A	23	-9.120	34.324	-0.025 1.000 32.50
ATOM	32	CG	PRO	A	23	-10.228	35.253	0.317 1.000 32.13
ATOM	33	CD	PRO	A	23	-9.784	36.062	1.490 1.000 33.79
ATOM	34	C	PRO	A	23	-7.229	35.869	-0.664 1.000 27.64
ATOM	35	O	PRO	A	23	-7.703	36.980	-0.890 1.000 28.84
ATOM	36	N	ILE	A	24	-6.205	35.309	-1.275 1.000 25.07
ATOM	37	CA	ILE	A	24	-5.480	35.988	-2.347 1.000 26.87
ATOM	38	CB	ILE	A	24	-4.118	36.521	-1.880 1.000 23.03
ATOM	39	CG1	ILE	A	24	-4.194	37.387	-0.616 1.000 32.69
ATOM	40	CD1	ILE	A	24	-4.803	38.749	-0.870 1.000 36.67
ATOM	41	CG2	ILE	A	24	-3.411	37.301	-2.982 1.000 35.11
ATOM	42	C	ILE	A	24	-5.297	35.003	-3.489 1.000 23.25
ATOM	43	O	ILE	A	24	-4.816	33.891	-3.288 1.000 28.71
ATOM	44	N	LYS	A	25	-5.703	35.414	-4.692 1.000 28.16
ATOM	45	CA	LYS	A	25	-5.530	34.603	-5.877 1.000 28.40
ATOM	46	CB	LYS	A	25	-6.067	35.296	-7.130 1.000 34.65
ATOM	47	CG	LYS	A	25	-7.546	35.653	-7.058 1.000 38.17
ATOM	48	CD	LYS	A	25	-7.944	36.538	-8.227 1.000 48.55
ATOM	49	CE	LYS	A	25	-9.420	36.915	-8.158 1.000 55.62
ATOM	50	NZ	LYS	A	25	-9.640	38.251	-7.532 1.000 59.24
ATOM	51	C	LYS	A	25	-4.034	34.363	-6.051 1.000 26.23

**FIGURE 202**

ATOM	52	O	LYS	A	25	-3.283	35.312	-5.797	1.000	35.63
ATOM	53	N	ILE	A	26	-3.655	33.153	-6.449	1.000	26.51
ATOM	54	CA	ILE	A	26	-2.202	32.943	-6.476	1.000	39.40
ATOM	55	CB	ILE	A	26	-1.848	31.483	-6.769	1.000	41.92
ATOM	56	CG1	ILE	A	26	-2.538	30.872	-7.986	1.000	55.69
ATOM	57	CD1	ILE	A	26	-1.953	29.527	-8.398	1.000	43.15
ATOM	58	CG2	ILE	A	26	-2.092	30.645	-5.505	1.000	30.44
ATOM	59	C	ILE	A	26	-1.545	33.891	-7.468	1.000	49.89
ATOM	60	O	ILE	A	26	-0.403	34.315	-7.258	1.000	61.92
ATOM	61	N	ASN	A	27	-2.257	34.261	-8.535	1.000	47.63
ATOM	62	CA	ASN	A	27	-1.622	35.182	-9.489	1.000	48.85
ATOM	63	CB	ASN	A	27	-2.409	35.259	-10.789	1.000	58.29
ATOM	64	CG	ASN	A	27	-3.867	35.634	-10.702	1.000	64.78
ATOM	65	OD1	ASN	A	27	-4.735	34.952	-11.257	1.000	66.47
ATOM	66	ND2	ASN	A	27	-4.181	36.732	-10.026	1.000	76.39
ATOM	67	C	ASN	A	27	-1.419	36.560	-8.875	1.000	42.84
ATOM	68	O	ASN	A	27	-0.555	37.314	-9.323	1.000	45.62
ATOM	69	N	GLN	A	28	-2.197	36.926	-7.856	1.000	38.86
ATOM	70	CA	GLN	A	28	-1.986	38.188	-7.174	1.000	39.38
ATOM	71	CB	GLN	A	28	-3.330	38.731	-6.666	1.000	44.68
ATOM	72	CG	GLN	A	28	-3.622	40.150	-7.123	1.000	69.70
ATOM	73	CD	GLN	A	28	-3.103	40.420	-8.526	1.000	86.93
ATOM	74	OE1	GLN	A	28	-3.225	39.566	-9.412	1.000	117.05
ATOM	75	NE2	GLN	A	28	-2.527	41.600	-8.735	1.000	74.84
ATOM	76	C	GLN	A	28	-1.024	38.107	-5.992	1.000	38.67
ATOM	77	O	GLN	A	28	-0.763	39.173	-5.416	1.000	27.96
ATOM	78	N	PHE	A	29	-0.525	36.933	-5.609	1.000	36.04
ATOM	79	CA	PHE	A	29	0.171	36.807	-4.326	1.000	34.34
ATOM	80	CB	PHE	A	29	0.531	35.339	-3.998	1.000	30.22
ATOM	81	CG	PHE	A	29	0.922	35.274	-2.520	1.000	26.86
ATOM	82	CD1	PHE	A	29	-0.074	35.297	-1.554	1.000	29.29
ATOM	83	CE1	PHE	A	29	0.225	35.248	-0.203	1.000	28.67
ATOM	84	CZ	PHE	A	29	1.560	35.208	0.168	1.000	38.22
ATOM	85	CE2	PHE	A	29	2.567	35.166	-0.786	1.000	38.42
ATOM	86	CD2	PHE	A	29	2.249	35.197	-2.134	1.000	32.07
ATOM	87	C	PHE	A	29	1.448	37.636	-4.193	1.000	33.30
ATOM	88	O	PHE	A	29	1.580	38.350	-3.187	1.000	34.15
ATOM	89	N	GLU	A	30	2.352	37.531	-5.149	1.000	41.14
ATOM	90	CA	GLU	A	30	3.603	38.271	-5.221	1.000	38.75
ATOM	91	CB	GLU	A	30	4.200	38.126	-6.629	1.000	41.90
ATOM	92	CG	GLU	A	30	5.619	38.657	-6.739	1.000	50.56
ATOM	93	CD	GLU	A	30	6.619	37.768	-6.022	1.000	60.13
ATOM	94	OE1	GLU	A	30	6.912	36.658	-6.515	1.000	51.89
ATOM	95	OE2	GLU	A	30	7.109	38.196	-4.954	1.000	80.65
ATOM	96	C	GLU	A	30	3.456	39.755	-4.931	1.000	38.26
ATOM	97	O	GLU	A	30	4.217	40.361	-4.169	1.000	39.06
ATOM	98	N	GLY	A	31	2.463	40.378	-5.572	1.000	33.74
ATOM	99	CA	GLY	A	31	2.321	41.815	-5.409	1.000	29.48
ATOM	100	C	GLY	A	31	1.552	42.106	-4.143	1.000	35.24
ATOM	101	O	GLY	A	31	1.757	43.141	-3.521	1.000	37.25
ATOM	102	N	HIS	A	32	0.678	41.149	-3.786	1.000	36.89
ATOM	103	CA	HIS	A	32	0.025	41.293	-2.488	1.000	33.45

**FIGURE 203**

ATOM	104	CB	HIS	A	32	-0.863	40.102	-2.149	1.000	30.08
ATOM	105	CG	HIS	A	32	-1.356	40.057	-0.738	1.000	25.45
ATOM	106	ND1	HIS	A	32	-2.309	40.907	-0.234	1.000	36.70
ATOM	107	CE1	HIS	A	32	-2.555	40.630	1.038	1.000	39.89
ATOM	108	NE2	HIS	A	32	-1.786	39.603	1.379	1.000	36.80
ATOM	109	CD2	HIS	A	32	-1.032	39.232	0.292	1.000	26.97
ATOM	110	C	HIS	A	32	1.101	41.431	-1.410	1.000	35.73
ATOM	111	O	HIS	A	32	1.007	42.277	-0.516	1.000	32.27
ATOM	112	N	PHE	A	33	2.090	40.543	-1.556	1.000	34.68
ATOM	113	CA	PHE	A	33	3.120	40.431	-0.515	1.000	32.48
ATOM	114	CB	PHE	A	33	3.828	39.071	-0.591	1.000	36.84
ATOM	115	CG	PHE	A	33	4.751	38.835	0.595	1.000	37.98
ATOM	116	CD1	PHE	A	33	4.471	39.433	1.812	1.000	40.95
ATOM	117	CE1	PHE	A	33	5.308	39.272	2.895	1.000	43.07
ATOM	118	CZ	PHE	A	33	6.440	38.479	2.754	1.000	34.64
ATOM	119	CE2	PHE	A	33	6.724	37.866	1.554	1.000	26.60
ATOM	120	CD2	PHE	A	33	5.875	38.039	0.472	1.000	32.44
ATOM	121	C	PHE	A	33	4.050	41.630	-0.607	1.000	36.33
ATOM	122	O	PHE	A	33	4.526	42.116	0.428	1.000	41.59
ATOM	123	N	MET	A	34	4.284	42.170	-1.802	1.000	45.92
ATOM	124	CA	MET	A	34	5.094	43.397	-1.876	1.000	40.90
ATOM	125	CB	MET	A	34	5.460	43.656	-3.336	1.000	48.61
ATOM	126	CG	MET	A	34	6.895	43.260	-3.662	1.000	40.86
ATOM	127	SD	MET	A	34	6.983	41.845	-4.774	1.000	86.63
ATOM	128	CE	MET	A	34	8.572	41.170	-4.254	1.000	72.85
ATOM	129	C	MET	A	34	4.383	44.588	-1.259	1.000	42.23
ATOM	130	O	MET	A	34	4.968	45.443	-0.568	1.000	50.41
ATOM	131	N	LYS	A	35	3.065	44.686	-1.458	1.000	34.55
ATOM	132	CA	LYS	A	35	2.351	45.788	-0.795	1.000	45.08
ATOM	133	CB	LYS	A	35	0.889	45.809	-1.279	1.000	48.74
ATOM	134	CG	LYS	A	35	0.793	46.296	-2.720	1.000	51.47
ATOM	135	CD	LYS	A	35	-0.509	45.889	-3.382	1.000	56.83
ATOM	136	CE	LYS	A	35	-0.788	46.795	-4.577	1.000	55.04
ATOM	137	NZ	LYS	A	35	-0.993	46.020	-5.830	1.000	61.49
ATOM	138	C	LYS	A	35	2.417	45.703	0.717	1.000	38.13
ATOM	139	O	LYS	A	35	2.575	46.713	1.419	1.000	38.53
ATOM	140	N	LEU	A	36	2.293	44.483	1.267	1.000	37.05
ATOM	141	CA	LEU	A	36	2.281	44.337	2.720	1.000	33.35
ATOM	142	CB	LEU	A	36	1.904	42.922	3.179	1.000	29.64
ATOM	143	CG	LEU	A	36	0.453	42.474	3.024	1.000	30.10
ATOM	144	CD1	LEU	A	36	0.259	41.052	3.567	1.000	35.30
ATOM	145	CD2	LEU	A	36	-0.516	43.409	3.723	1.000	31.56
ATOM	146	C	LEU	A	36	3.641	44.718	3.311	1.000	26.53
ATOM	147	O	LEU	A	36	3.664	45.268	4.415	1.000	45.90
ATOM	148	N	GLN	A	37	4.713	44.426	2.591	1.000	30.34
ATOM	149	CA	GLN	A	37	6.073	44.682	3.038	1.000	46.11
ATOM	150	CB	GLN	A	37	7.038	43.727	2.321	1.000	45.16
ATOM	151	CG	GLN	A	37	7.047	42.323	2.925	1.000	46.46
ATOM	152	CD	GLN	A	37	7.963	41.397	2.146	1.000	41.79
ATOM	153	OE1	GLN	A	37	8.895	40.818	2.701	1.000	53.12
ATOM	154	NE2	GLN	A	37	7.682	41.253	0.854	1.000	59.23
ATOM	155	C	GLN	A	37	6.554	46.116	2.816	1.000	58.12

FIGURE 204



ATOM	156	O	GLN	A	37	7.585	46.535	3.366	1.000	44.71
ATOM	157	N	ALA	A	38	5.820	46.878	2.014	1.000	51.00
ATOM	158	CA	ALA	A	38	6.214	48.252	1.734	1.000	51.95
ATOM	159	CB	ALA	A	38	5.334	48.856	0.638	1.000	33.90
ATOM	160	C	ALA	A	38	6.155	49.144	2.971	1.000	53.47
ATOM	161	O	ALA	A	38	5.408	48.911	3.916	1.000	39.54
ATOM	162	N	ASP	A	39	6.967	50.198	2.923	1.000	54.79
ATOM	163	CA	ASP	A	39	7.037	51.192	3.990	1.000	41.76
ATOM	164	CB	ASP	A	39	5.738	51.973	4.114	1.000	38.24
ATOM	165	CG	ASP	A	39	5.127	52.287	2.757	1.000	53.89
ATOM	166	OD1	ASP	A	39	4.001	52.837	2.732	1.000	61.68
ATOM	167	OD2	ASP	A	39	5.750	52.000	1.707	1.000	55.37
ATOM	168	C	ASP	A	39	7.401	50.477	5.289	1.000	41.78
ATOM	169	O	ASP	A	39	6.886	50.753	6.369	1.000	42.20
ATOM	170	N	SER	A	40	8.339	49.547	5.104	1.000	41.63
ATOM	171	CA	SER	A	40	8.819	48.736	6.213	1.000	39.11
ATOM	172	CB	SER	A	40	9.331	49.627	7.344	1.000	45.54
ATOM	173	OG	SER	A	40	10.507	50.325	6.967	1.000	63.33
ATOM	174	C	SER	A	40	7.701	47.838	6.726	1.000	33.78
ATOM	175	O	SER	A	40	7.500	47.791	7.939	1.000	44.33
ATOM	176	N	ASN	A	41	6.979	47.158	5.831	1.000	36.63
ATOM	177	CA	ASN	A	41	5.911	46.290	6.314	1.000	46.11
ATOM	178	CB	ASN	A	41	6.386	45.245	7.332	1.000	39.56
ATOM	179	CG	ASN	A	41	7.336	44.240	6.734	1.000	39.34
ATOM	180	OD1	ASN	A	41	7.679	43.246	7.379	1.000	66.37
ATOM	181	ND2	ASN	A	41	7.760	44.503	5.505	1.000	47.43
ATOM	182	C	ASN	A	41	4.833	47.097	7.034	1.000	52.00
ATOM	183	O	ASN	A	41	4.484	46.727	8.159	1.000	45.88
ATOM	184	N	TYR	A	42	4.366	48.150	6.376	1.000	47.78
ATOM	185	CA	TYR	A	42	3.394	49.022	7.014	1.000	48.64
ATOM	186	CB	TYR	A	42	3.181	50.305	6.197	1.000	50.57
ATOM	187	CG	TYR	A	42	2.110	51.181	6.818	1.000	60.30
ATOM	188	CD1	TYR	A	42	2.315	51.798	8.049	1.000	73.71
ATOM	189	CE1	TYR	A	42	1.345	52.597	8.619	1.000	79.76
ATOM	190	CZ	TYR	A	42	0.148	52.779	7.947	1.000	83.87
ATOM	191	OH	TYR	A	42	-0.829	53.570	8.494	1.000	96.86
ATOM	192	CE2	TYR	A	42	-0.084	52.176	6.728	1.000	77.87
ATOM	193	CD2	TYR	A	42	0.899	51.382	6.173	1.000	69.62
ATOM	194	C	TYR	A	42	2.080	48.272	7.202	1.000	40.91
ATOM	195	O	TYR	A	42	1.518	48.233	8.297	1.000	38.94
ATOM	196	N	LEU	A	43	1.628	47.688	6.094	1.000	39.86
ATOM	197	CA	LEU	A	43	0.324	47.037	6.065	1.000	38.25
ATOM	198	CB	LEU	A	43	-0.240	46.976	4.648	1.000	34.42
ATOM	199	CG	LEU	A	43	-0.625	48.329	4.021	1.000	39.05
ATOM	200	CD1	LEU	A	43	-0.840	48.146	2.529	1.000	35.82
ATOM	201	CD2	LEU	A	43	-1.869	48.904	4.671	1.000	38.28
ATOM	202	C	LEU	A	43	0.401	45.628	6.658	1.000	40.26
ATOM	203	O	LEU	A	43	-0.571	45.204	7.288	1.000	41.80
ATOM	204	N	LEU	A	44	1.531	44.954	6.473	1.000	40.52
ATOM	205	CA	LEU	A	44	1.755	43.658	7.118	1.000	40.17
ATOM	206	CB	LEU	A	44	3.181	43.148	6.903	1.000	40.11
ATOM	207	CG	LEU	A	44	3.410	41.689	7.327	1.000	39.64

**FIGURE 205**

ATOM	208	CD1	LEU	A	44	4.236	40.957	6.288	1.000	46.27
ATOM	209	CD2	LEU	A	44	4.073	41.640	8.693	1.000	36.71
ATOM	210	C	LEU	A	44	1.490	43.724	8.616	1.000	40.53
ATOM	211	O	LEU	A	44	0.821	42.859	9.180	1.000	35.07
ATOM	212	N	SER	A	45	2.019	44.759	9.269	1.000	33.52
ATOM	213	CA	SER	A	45	1.856	44.909	10.710	1.000	33.03
ATOM	214	CB	SER	A	45	2.871	45.946	11.228	1.000	29.94
ATOM	215	OG	SER	A	45	4.137	45.710	10.612	1.000	33.78
ATOM	216	C	SER	A	45	0.433	45.275	11.087	1.000	36.97
ATOM	217	O	SER	A	45	-0.131	44.758	12.058	1.000	34.42
ATOM	218	N	LYS	A	46	-0.211	46.176	10.345	1.000	34.85
ATOM	219	CA	LYS	A	46	-1.630	46.418	10.604	1.000	31.36
ATOM	220	CB	LYS	A	46	-2.199	47.461	9.636	1.000	36.80
ATOM	221	CG	LYS	A	46	-1.400	48.758	9.630	1.000	46.16
ATOM	222	CD	LYS	A	46	-2.286	49.966	9.884	1.000	50.59
ATOM	223	CE	LYS	A	46	-1.915	50.631	11.197	1.000	58.31
ATOM	224	NZ	LYS	A	46	-0.513	51.127	11.179	1.000	66.09
ATOM	225	C	LYS	A	46	-2.425	45.116	10.503	1.000	31.41
ATOM	226	O	LYS	A	46	-3.340	44.917	11.304	1.000	42.72
ATOM	227	N	GLU	A	47	-2.082	44.251	9.555	1.000	27.42
ATOM	228	CA	GLU	A	47	-2.810	43.006	9.332	1.000	33.85
ATOM	229	CB	GLU	A	47	-2.437	42.314	8.018	1.000	35.99
ATOM	230	CG	GLU	A	47	-3.311	41.079	7.802	1.000	36.26
ATOM	231	CD	GLU	A	47	-3.301	40.603	6.369	1.000	33.51
ATOM	232	OE1	GLU	A	47	-4.136	41.068	5.559	1.000	34.52
ATOM	233	OE2	GLU	A	47	-2.433	39.753	6.076	1.000	31.53
ATOM	234	C	GLU	A	47	-2.560	41.985	10.443	1.000	30.28
ATOM	235	O	GLU	A	47	-3.506	41.345	10.901	1.000	37.61
ATOM	236	N	TYR	A	48	-1.298	41.883	10.836	1.000	30.47
ATOM	237	CA	TYR	A	48	-0.931	41.057	11.983	1.000	29.64
ATOM	238	CB	TYR	A	48	0.590	41.107	12.208	1.000	34.11
ATOM	239	CG	TYR	A	48	1.016	40.197	13.336	1.000	31.94
ATOM	240	CD1	TYR	A	48	0.866	38.821	13.183	1.000	33.96
ATOM	241	CE1	TYR	A	48	1.231	37.938	14.175	1.000	32.68
ATOM	242	CZ	TYR	A	48	1.754	38.404	15.360	1.000	35.81
ATOM	243	OH	TYR	A	48	2.101	37.491	16.330	1.000	39.47
ATOM	244	CE2	TYR	A	48	1.911	39.760	15.548	1.000	38.83
ATOM	245	CD2	TYR	A	48	1.542	40.648	14.540	1.000	36.26
ATOM	246	C	TYR	A	48	-1.712	41.530	13.202	1.000	39.70
ATOM	247	O	TYR	A	48	-2.201	40.748	14.015	1.000	34.67
ATOM	248	N	GLU	A	49	-1.839	42.852	13.334	1.000	34.55
ATOM	249	CA	GLU	A	49	-2.480	43.503	14.469	1.000	26.84
ATOM	250	CB	GLU	A	49	-2.226	45.029	14.435	1.000	31.26
ATOM	251	CG	GLU	A	49	-0.796	45.295	14.919	1.000	41.28
ATOM	252	CD	GLU	A	49	-0.707	44.824	16.368	1.000	46.36
ATOM	253	OE1	GLU	A	49	0.167	44.004	16.694	1.000	49.76
ATOM	254	OE2	GLU	A	49	-1.540	45.294	17.171	1.000	64.46
ATOM	255	C	GLU	A	49	-3.968	43.243	14.489	1.000	17.64
ATOM	256	O	GLU	A	49	-4.611	43.212	15.530	1.000	31.99
ATOM	257	N	GLU	A	50	-4.527	43.054	13.298	1.000	24.66
ATOM	258	CA	GLU	A	50	-5.942	42.729	13.220	1.000	33.35
ATOM	259	CB	GLU	A	50	-6.441	42.674	11.768	1.000	34.57

FIGURE 206

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Three Dimensional Coordinates of HPTPbeta

ATOM	260	CG	GLU	A	50	-6.190	43.933	10.956	1.000	42.22
ATOM	261	CD	GLU	A	50	-7.128	43.945	9.750	1.000	52.34
ATOM	262	OE1	GLU	A	50	-8.357	43.957	9.988	1.000	46.50
ATOM	263	OE2	GLU	A	50	-6.639	43.930	8.604	1.000	70.90
ATOM	264	C	GLU	A	50	-6.238	41.369	13.861	1.000	25.23
ATOM	265	O	GLU	A	50	-7.375	41.121	14.248	1.000	30.99
ATOM	266	N	LEU	A	51	-5.239	40.508	13.957	1.000	26.01
ATOM	267	CA	LEU	A	51	-5.447	39.194	14.580	1.000	21.27
ATOM	268	CB	LEU	A	51	-4.470	38.237	13.898	1.000	22.16
ATOM	269	CG	LEU	A	51	-4.752	38.015	12.411	1.000	26.33
ATOM	270	CD1	LEU	A	51	-3.531	37.428	11.721	1.000	24.42
ATOM	271	CD2	LEU	A	51	-5.938	37.091	12.208	1.000	28.60
ATOM	272	C	LEU	A	51	-5.186	39.188	16.068	1.000	28.00
ATOM	273	O	LEU	A	51	-5.315	38.171	16.742	1.000	26.46
ATOM	274	N	LYS	A	52	-4.767	40.325	16.620	1.000	26.04
ATOM	275	CA	LYS	A	52	-4.297	40.372	18.002	1.000	27.42
ATOM	276	CB	LYS	A	52	-3.950	41.832	18.319	1.000	30.97
ATOM	277	CG	LYS	A	52	-3.602	42.133	19.765	1.000	36.67
ATOM	278	CD	LYS	A	52	-2.878	43.478	19.823	1.000	47.93
ATOM	279	CE	LYS	A	52	-3.089	44.186	21.148	1.000	54.43
ATOM	280	NZ	LYS	A	52	-3.831	45.481	20.963	1.000	76.91
ATOM	281	C	LYS	A	52	-5.281	39.803	19.009	1.000	30.56
ATOM	282	O	LYS	A	52	-4.866	38.997	19.848	1.000	31.78
ATOM	283	N	ASP	A	53	-6.560	40.166	18.951	1.000	22.00
ATOM	284	CA	ASP	A	53	-7.502	39.716	19.960	1.000	27.33
ATOM	285	CB	ASP	A	53	-8.442	40.858	20.385	1.000	30.10
ATOM	286	CG	ASP	A	53	-7.622	42.098	20.721	1.000	47.01
ATOM	287	OD1	ASP	A	53	-6.798	42.004	21.657	1.000	67.96
ATOM	288	OD2	ASP	A	53	-7.810	43.119	20.027	1.000	65.18
ATOM	289	C	ASP	A	53	-8.370	38.541	19.536	1.000	25.20
ATOM	290	O	ASP	A	53	-9.268	38.189	20.304	1.000	25.98
ATOM	291	N	VAL	A	54	-8.123	37.957	18.372	1.000	23.81
ATOM	292	CA	VAL	A	54	-8.897	36.770	17.995	1.000	20.94
ATOM	293	CB	VAL	A	54	-8.477	36.258	16.616	1.000	22.31
ATOM	294	CG1	VAL	A	54	-9.232	34.978	16.241	1.000	29.30
ATOM	295	CG2	VAL	A	54	-8.710	37.323	15.543	1.000	21.16
ATOM	296	C	VAL	A	54	-8.722	35.657	19.047	1.000	22.79
ATOM	297	O	VAL	A	54	-7.595	35.307	19.395	1.000	24.33
ATOM	298	N	GLY	A	55	-9.835	35.135	19.514	1.000	19.38
ATOM	299	CA	GLY	A	55	-10.013	34.105	20.496	1.000	21.67
ATOM	300	C	GLY	A	55	-9.849	34.607	21.923	1.000	26.11
ATOM	301	O	GLY	A	55	-10.150	33.822	22.828	1.000	24.18
ATOM	302	N	ARG	A	56	-9.400	35.842	22.115	1.000	28.14
ATOM	303	CA	ARG	A	56	-8.976	36.366	23.416	1.000	31.63
ATOM	304	CB	ARG	A	56	-8.162	37.661	23.262	1.000	32.19
ATOM	305	CG	ARG	A	56	-6.762	37.493	22.699	1.000	31.76
ATOM	306	CD	ARG	A	56	-5.957	36.532	23.528	1.000	29.57
ATOM	307	NE	ARG	A	56	-4.544	36.431	23.220	1.000	30.87
ATOM	308	CZ	ARG	A	56	-3.526	37.074	23.757	1.000	30.34
ATOM	309	NH1	ARG	A	56	-3.681	37.983	24.710	1.000	22.02
ATOM	310	NH2	ARG	A	56	-2.280	36.828	23.339	1.000	31.11
ATOM	311	C	ARG	A	56	-10.110	36.645	24.386	1.000	27.29

**FIGURE 207**

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ATOM	312	O	ARG	A	56	-9.904	37.126	25.512	1.000	30.11
ATOM	313	N	ASN	A	57	-11.352	36.365	24.023	1.000	19.89
ATOM	314	CA	ASN	A	57	-12.429	36.544	24.990	1.000	21.90
ATOM	315	CB	ASN	A	57	-13.713	36.926	24.246	1.000	27.73
ATOM	316	CG	ASN	A	57	-14.041	35.852	23.214	1.000	36.94
ATOM	317	OD1	ASN	A	57	-13.158	35.389	22.486	1.000	42.61
ATOM	318	ND2	ASN	A	57	-15.303	35.449	23.148	1.000	39.27
ATOM	319	C	ASN	A	57	-12.594	35.274	25.807	1.000	27.58
ATOM	320	O	ASN	A	57	-13.336	35.218	26.785	1.000	32.05
ATOM	321	N	GLN	A	58	-11.917	34.193	25.434	1.000	25.93
ATOM	322	CA	GLN	A	58	-12.213	32.925	26.103	1.000	23.11
ATOM	323	CB	GLN	A	58	-11.975	31.773	25.109	1.000	24.51
ATOM	324	CG	GLN	A	58	-12.758	31.911	23.809	1.000	19.93
ATOM	325	CD	GLN	A	58	-12.245	30.977	22.712	1.000	21.00
ATOM	326	OE1	GLN	A	58	-11.224	31.206	22.055	1.000	21.51
ATOM	327	NE2	GLN	A	58	-12.953	29.879	22.484	1.000	21.23
ATOM	328	C	GLN	A	58	-11.396	32.695	27.366	1.000	23.30
ATOM	329	O	GLN	A	58	-10.242	33.132	27.462	1.000	24.27
ATOM	330	N	SER	A	59	-11.981	31.996	28.335	1.000	19.68
ATOM	331	CA	SER	A	59	-11.377	31.719	29.620	1.000	20.00
ATOM	332	CB	SER	A	59	-12.481	31.570	30.673	1.000	29.01
ATOM	333	OG	SER	A	59	-13.222	30.375	30.394	1.000	51.65
ATOM	334	C	SER	A	59	-10.565	30.423	29.617	1.000	32.69
ATOM	335	O	SER	A	59	-10.792	29.571	28.754	1.000	24.40
ATOM	336	N	CYS	A	60	-9.682	30.285	30.596	1.000	21.63
ATOM	337	CA	CYS	A	60	-8.872	29.128	30.861	1.000	19.92
ATOM	338	CB	CYS	A	60	-7.392	29.346	30.568	1.000	20.33
ATOM	339	SG	CYS	A	60	-7.068	30.023	28.934	1.000	23.64
ATOM	340	C	CYS	A	60	-8.980	28.736	32.344	1.000	21.45
ATOM	341	O	CYS	A	60	-7.941	28.497	32.959	1.000	20.03
ATOM	342	N	ASP	A	61	-10.220	28.697	32.804	1.000	22.24
ATOM	343	CA	ASP	A	61	-10.439	28.455	34.236	1.000	22.76
ATOM	344	CB	ASP	A	61	-11.912	28.676	34.545	1.000	26.65
ATOM	345	CG	ASP	A	61	-12.408	30.099	34.398	1.000	27.80
ATOM	346	OD1	ASP	A	61	-11.617	31.062	34.345	1.000	25.45
ATOM	347	OD2	ASP	A	61	-13.650	30.248	34.356	1.000	28.50
ATOM	348	C	ASP	A	61	-9.962	27.065	34.629	1.000	27.73
ATOM	349	O	ASP	A	61	-9.345	26.878	35.690	1.000	25.51
ATOM	350	N	ILE	A	62	-10.221	26.052	33.792	1.000	24.65
ATOM	351	CA	ILE	A	62	-9.809	24.698	34.223	1.000	21.14
ATOM	352	CB	ILE	A	62	-10.325	23.659	33.214	1.000	21.34
ATOM	353	CG1	ILE	A	62	-11.838	23.755	33.010	1.000	22.01
ATOM	354	CD1	ILE	A	62	-12.609	23.524	34.306	1.000	33.06
ATOM	355	CG2	ILE	A	62	-9.903	22.258	33.624	1.000	31.17
ATOM	356	C	ILE	A	62	-8.309	24.617	34.399	1.000	22.92
ATOM	357	O	ILE	A	62	-7.792	24.134	35.422	1.000	26.58
ATOM	358	N	ALA	A	63	-7.566	25.123	33.412	1.000	19.57
ATOM	359	CA	ALA	A	63	-6.122	25.164	33.470	1.000	19.70
ATOM	360	CB	ALA	A	63	-5.549	25.916	32.285	1.000	22.66
ATOM	361	C	ALA	A	63	-5.604	25.864	34.733	1.000	27.00
ATOM	362	O	ALA	A	63	-4.516	25.553	35.212	1.000	21.30
ATOM	363	N	LEU	A	64	-6.404	26.799	35.235	1.000	23.07

**FIGURE 208**

ATOM	364	CA	LEU	A	64	-6.027	27.582	36.400	1.000	24.35
ATOM	365	CB	LEU	A	64	-6.749	28.929	36.297	1.000	23.45
ATOM	366	CG	LEU	A	64	-6.102	29.880	35.306	1.000	23.45
ATOM	367	CD1	LEU	A	64	-6.952	31.144	35.230	1.000	26.55
ATOM	368	CD2	LEU	A	64	-4.677	30.179	35.723	1.000	24.94
ATOM	369	C	LEU	A	64	-6.381	26.919	37.713	1.000	31.23
ATOM	370	O	LEU	A	64	-6.097	27.521	38.750	1.000	30.60
ATOM	371	N	LEU	A	65	-6.982	25.733	37.690	1.000	25.47
ATOM	372	CA	LEU	A	65	-7.306	25.047	38.937	1.000	27.75
ATOM	373	CB	LEU	A	65	-8.162	23.817	38.624	1.000	29.69
ATOM	374	CG	LEU	A	65	-9.587	24.168	38.169	1.000	29.27
ATOM	375	CD1	LEU	A	65	-10.317	22.915	37.710	1.000	22.91
ATOM	376	CD2	LEU	A	65	-10.326	24.875	39.294	1.000	45.21
ATOM	377	C	LEU	A	65	-6.045	24.666	39.697	1.000	32.88
ATOM	378	O	LEU	A	65	-5.049	24.217	39.140	1.000	35.70
ATOM	379	N	PRO	A	66	-6.075	24.876	41.014	1.000	36.18
ATOM	380	CA	PRO	A	66	-4.904	24.635	41.858	1.000	36.18
ATOM	381	CB	PRO	A	66	-5.488	24.754	43.275	1.000	47.92
ATOM	382	CG	PRO	A	66	-6.648	25.684	43.117	1.000	42.33
ATOM	383	CD	PRO	A	66	-7.235	25.378	41.764	1.000	30.77
ATOM	384	C	PRO	A	66	-4.302	23.248	41.658	1.000	26.18
ATOM	385	O	PRO	A	66	-3.084	23.122	41.569	1.000	37.38
ATOM	386	N	GLU	A	67	-5.151	22.242	41.580	1.000	33.07
ATOM	387	CA	GLU	A	67	-4.828	20.867	41.244	1.000	38.66
ATOM	388	CB	GLU	A	67	-6.138	20.071	41.150	1.000	40.47
ATOM	389	CG	GLU	A	67	-7.142	20.605	40.154	1.000	58.25
ATOM	390	CD	GLU	A	67	-8.530	20.002	40.228	1.000	70.71
ATOM	391	OE1	GLU	A	67	-8.874	19.134	39.390	1.000	47.20
ATOM	392	OE2	GLU	A	67	-9.311	20.406	41.123	1.000	81.59
ATOM	393	C	GLU	A	67	-4.033	20.762	39.946	1.000	40.21
ATOM	394	O	GLU	A	67	-3.232	19.837	39.768	1.000	33.36
ATOM	395	N	ASN	A	68	-4.202	21.695	39.001	1.000	27.60
ATOM	396	CA	ASN	A	68	-3.494	21.553	37.729	1.000	27.03
ATOM	397	CB	ASN	A	68	-4.471	21.891	36.584	1.000	25.75
ATOM	398	CG	ASN	A	68	-5.638	20.924	36.530	1.000	27.63
ATOM	399	OD1	ASN	A	68	-5.417	19.725	36.763	1.000	27.03
ATOM	400	ND2	ASN	A	68	-6.837	21.424	36.223	1.000	20.87
ATOM	401	C	ASN	A	68	-2.244	22.400	37.582	1.000	29.26
ATOM	402	O	ASN	A	68	-1.561	22.322	36.543	1.000	32.09
ATOM	403	N	ARG	A	69	-1.877	23.230	38.550	1.000	39.29
ATOM	404	CA	ARG	A	69	-0.765	24.169	38.333	1.000	36.83
ATOM	405	CB	ARG	A	69	-0.581	25.036	39.587	1.000	41.69
ATOM	406	CG	ARG	A	69	0.072	26.376	39.290	1.000	44.04
ATOM	407	CD	ARG	A	69	-0.117	27.331	40.461	1.000	60.35
ATOM	408	NE	ARG	A	69	-1.481	27.376	40.972	1.000	61.46
ATOM	409	CZ	ARG	A	69	-1.832	27.284	42.248	1.000	67.83
ATOM	410	NH1	ARG	A	69	-3.113	27.336	42.599	1.000	61.15
ATOM	411	NH2	ARG	A	69	-0.920	27.136	43.202	1.000	84.01
ATOM	412	C	ARG	A	69	0.541	23.491	37.948	1.000	31.02
ATOM	413	O	ARG	A	69	1.225	23.924	37.009	1.000	34.71
ATOM	414	N	GLY	A	70	0.895	22.385	38.603	1.000	27.71
ATOM	415	CA	GLY	A	70	2.103	21.679	38.203	1.000	25.00

**FIGURE 209**

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ATOM	416	C	GLY	A	70	2.044	21.041	36.822	1.000	24.89
ATOM	417	O	GLY	A	70	3.083	20.564	36.376	1.000	31.72
ATOM	418	N	LYS	A	71	0.903	21.014	36.147	1.000	27.08
ATOM	419	CA	LYS	A	71	0.763	20.318	34.866	1.000	24.21
ATOM	420	CB	LYS	A	71	-0.653	19.731	34.781	1.000	21.70
ATOM	421	CG	LYS	A	71	-0.943	18.621	35.788	1.000	25.95
ATOM	422	CD	LYS	A	71	-2.404	18.202	35.750	1.000	27.35
ATOM	423	CE	LYS	A	71	-2.743	17.164	36.834	1.000	26.32
ATOM	424	NZ	LYS	A	71	-4.227	17.045	36.994	1.000	29.99
ATOM	425	C	LYS	A	71	1.003	21.230	33.678	1.000	26.31
ATOM	426	O	LYS	A	71	0.999	20.826	32.508	1.000	21.01
ATOM	427	N	ASN	A	72	1.209	22.517	33.974	1.000	24.08
ATOM	428	CA	ASN	A	72	1.520	23.503	32.951	1.000	24.06
ATOM	429	CB	ASN	A	72	0.700	24.782	33.236	1.000	23.98
ATOM	430	CG	ASN	A	72	-0.782	24.508	33.170	1.000	24.00
ATOM	431	OD1	ASN	A	72	-1.229	23.905	32.180	1.000	27.29
ATOM	432	ND2	ASN	A	72	-1.564	24.932	34.139	1.000	21.52
ATOM	433	C	ASN	A	72	2.999	23.855	32.902	1.000	24.14
ATOM	434	O	ASN	A	72	3.539	24.242	33.952	1.000	32.17
ATOM	435	N	ARG	A	73	3.669	23.767	31.763	1.000	18.37
ATOM	436	CA	ARG	A	73	5.068	24.153	31.624	1.000	20.26
ATOM	437	CB	ARG	A	73	5.606	23.824	30.236	1.000	27.07
ATOM	438	CG	ARG	A	73	7.082	24.137	30.020	1.000	24.27
ATOM	439	CD	ARG	A	73	7.645	23.603	28.712	1.000	22.01
ATOM	440	NE	ARG	A	73	7.794	22.144	28.739	1.000	23.84
ATOM	441	CZ	ARG	A	73	8.809	21.516	29.321	1.000	33.27
ATOM	442	NH1	ARG	A	73	9.757	22.240	29.913	1.000	21.92
ATOM	443	NH2	ARG	A	73	8.909	20.191	29.335	1.000	23.01
ATOM	444	C	ARG	A	73	5.231	25.648	31.916	1.000	30.65
ATOM	445	O	ARG	A	73	6.184	26.110	32.549	1.000	32.85
ATOM	446	N	TYR	A	74	4.279	26.440	31.452	1.000	27.96
ATOM	447	CA	TYR	A	74	4.329	27.903	31.619	1.000	22.72
ATOM	448	CB	TYR	A	74	4.778	28.577	30.343	1.000	24.68
ATOM	449	CG	TYR	A	74	6.008	28.085	29.620	1.000	40.81
ATOM	450	CD1	TYR	A	74	7.302	28.339	30.080	1.000	42.06
ATOM	451	CE1	TYR	A	74	8.424	27.881	29.404	1.000	30.31
ATOM	452	CZ	TYR	A	74	8.304	27.155	28.238	1.000	36.98
ATOM	453	OH	TYR	A	74	9.426	26.707	27.567	1.000	31.11
ATOM	454	CE2	TYR	A	74	7.038	26.881	27.739	1.000	33.48
ATOM	455	CD2	TYR	A	74	5.932	27.349	28.434	1.000	32.64
ATOM	456	C	TYR	A	74	2.932	28.320	32.074	1.000	35.24
ATOM	457	O	TYR	A	74	1.980	28.127	31.311	1.000	28.99
ATOM	458	N	ASN	A	75	2.831	28.838	33.293	1.000	34.47
ATOM	459	CA	ASN	A	75	1.587	29.142	33.973	1.000	26.33
ATOM	460	CB	ASN	A	75	1.844	29.654	35.396	1.000	28.02
ATOM	461	CG	ASN	A	75	2.541	28.595	36.230	1.000	47.27
ATOM	462	OD1	ASN	A	75	2.639	27.427	35.838	1.000	38.13
ATOM	463	ND2	ASN	A	75	3.009	29.045	37.388	1.000	58.84
ATOM	464	C	ASN	A	75	0.752	30.193	33.247	1.000	19.13
ATOM	465	O	ASN	A	75	-0.423	30.394	33.561	1.000	27.32
ATOM	466	N	ASN	A	76	1.348	30.876	32.289	1.000	18.49
ATOM	467	CA	ASN	A	76	0.562	31.826	31.510	1.000	26.54

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ATOM	468	CB	ASN	A	76	1.244	33.195	31.432	1.000	26.00
ATOM	469	CG	ASN	A	76	2.628	33.130	30.821	1.000	27.59
ATOM	470	OD1	ASN	A	76	3.295	32.100	30.926	1.000	28.39
ATOM	471	ND2	ASN	A	76	3.131	34.186	30.182	1.000	26.81
ATOM	472	C	ASN	A	76	0.331	31.297	30.101	1.000	26.92
ATOM	473	O	ASN	A	76	-0.145	32.065	29.263	1.000	24.80
ATOM	474	N	ILE	A	77	0.659	30.023	29.813	1.000	21.21
ATOM	475	CA	ILE	A	77	0.313	29.527	28.477	1.000	20.79
ATOM	476	CB	ILE	A	77	1.534	29.187	27.632	1.000	25.15
ATOM	477	CG1	ILE	A	77	2.596	30.315	27.595	1.000	31.48
ATOM	478	CD1	ILE	A	77	2.862	30.817	26.195	1.000	49.78
ATOM	479	CG2	ILE	A	77	1.116	28.793	26.229	1.000	23.01
ATOM	480	C	ILE	A	77	-0.604	28.313	28.648	1.000	23.40
ATOM	481	O	ILE	A	77	-0.121	27.210	28.877	1.000	24.16
ATOM	482	N	LEU	A	78	-1.899	28.584	28.583	1.000	20.25
ATOM	483	CA	LEU	A	78	-2.931	27.667	29.035	1.000	19.58
ATOM	484	CB	LEU	A	78	-3.621	28.170	30.307	1.000	18.02
ATOM	485	CG	LEU	A	78	-2.711	28.581	31.476	1.000	22.60
ATOM	486	CD1	LEU	A	78	-3.510	29.136	32.647	1.000	18.50
ATOM	487	CD2	LEU	A	78	-1.854	27.424	31.993	1.000	19.12
ATOM	488	C	LEU	A	78	-3.946	27.471	27.912	1.000	18.12
ATOM	489	O	LEU	A	78	-4.186	28.398	27.142	1.000	19.00
ATOM	490	N	PRO	A	79	-4.511	26.269	27.863	1.000	18.26
ATOM	491	CA	PRO	A	79	-5.546	26.003	26.858	1.000	16.50
ATOM	492	CB	PRO	A	79	-5.707	24.485	26.984	1.000	21.55
ATOM	493	CG	PRO	A	79	-5.462	24.228	28.452	1.000	13.29
ATOM	494	CD	PRO	A	79	-4.246	25.103	28.705	1.000	14.71
ATOM	495	C	PRO	A	79	-6.844	26.703	27.235	1.000	17.47
ATOM	496	O	PRO	A	79	-7.176	26.850	28.420	1.000	20.15
ATOM	497	N	TYR	A	80	-7.613	27.139	26.237	1.000	15.99
ATOM	498	CA	TYR	A	80	-8.958	27.654	26.481	1.000	17.04
ATOM	499	CB	TYR	A	80	-9.454	28.253	25.165	1.000	16.02
ATOM	500	CG	TYR	A	80	-8.756	29.502	24.697	1.000	17.83
ATOM	501	CD1	TYR	A	80	-8.514	30.562	25.574	1.000	17.44
ATOM	502	CE1	TYR	A	80	-7.879	31.711	25.143	1.000	18.38
ATOM	503	CZ	TYR	A	80	-7.474	31.828	23.837	1.000	17.97
ATOM	504	OH	TYR	A	80	-6.845	32.976	23.415	1.000	20.65
ATOM	505	CE2	TYR	A	80	-7.700	30.802	22.930	1.000	19.84
ATOM	506	CD2	TYR	A	80	-8.338	29.655	23.381	1.000	17.33
ATOM	507	C	TYR	A	80	-9.884	26.547	26.977	1.000	18.38
ATOM	508	O	TYR	A	80	-9.791	25.404	26.525	1.000	19.85
ATOM	509	N	ASP	A	81	-10.785	26.816	27.908	1.000	18.35
ATOM	510	CA	ASP	A	81	-11.772	25.824	28.336	1.000	23.15
ATOM	511	CB	ASP	A	81	-12.734	26.485	29.337	1.000	20.21
ATOM	512	CG	ASP	A	81	-12.050	26.883	30.626	1.000	19.62
ATOM	513	OD1	ASP	A	81	-11.107	26.212	31.082	1.000	20.36
ATOM	514	OD2	ASP	A	81	-12.437	27.911	31.225	1.000	24.76
ATOM	515	C	ASP	A	81	-12.539	25.250	27.153	1.000	19.52
ATOM	516	O	ASP	A	81	-12.771	24.029	27.079	1.000	21.17
ATOM	517	N	ALA	A	82	-12.910	26.116	26.218	1.000	19.35
ATOM	518	CA	ALA	A	82	-13.787	25.780	25.106	1.000	20.79
ATOM	519	CB	ALA	A	82	-14.147	27.041	24.318	1.000	21.73

**FIGURE 211**

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ATOM	520	C	ALA	A	82	-13.218	24.780	24.117	1.000	24.48
ATOM	521	O	ALA	A	82	-14.017	24.152	23.409	1.000	24.01
ATOM	522	N	THR	A	83	-11.910	24.613	24.002	1.000	19.51
ATOM	523	CA	THR	A	83	-11.324	23.717	22.995	1.000	17.80
ATOM	524	CB	THR	A	83	-10.631	24.588	21.940	1.000	16.46
ATOM	525	OG1	THR	A	83	-9.691	25.412	22.665	1.000	18.46
ATOM	526	CG2	THR	A	83	-11.616	25.512	21.246	1.000	23.15
ATOM	527	C	THR	A	83	-10.302	22.753	23.586	1.000	19.19
ATOM	528	O	THR	A	83	-9.519	22.101	22.875	1.000	18.99
ATOM	529	N	ARG	A	84	-10.239	22.638	24.919	1.000	15.87
ATOM	530	CA	ARG	A	84	-9.214	21.790	25.521	1.000	13.38
ATOM	531	CB	ARG	A	84	-9.125	22.053	27.033	1.000	17.35
ATOM	532	CG	ARG	A	84	-10.272	21.451	27.842	1.000	15.57
ATOM	533	CD	ARG	A	84	-10.161	21.906	29.303	1.000	23.22
ATOM	534	NE	ARG	A	84	-11.142	21.257	30.168	1.000	23.41
ATOM	535	CZ	ARG	A	84	-10.962	20.204	30.948	1.000	20.47
ATOM	536	NH1	ARG	A	84	-9.809	19.561	31.054	1.000	19.35
ATOM	537	NH2	ARG	A	84	-11.994	19.773	31.664	1.000	22.12
ATOM	538	C	ARG	A	84	-9.470	20.299	25.308	1.000	18.88
ATOM	539	O	ARG	A	84	-10.635	19.874	25.268	1.000	22.06
ATOM	540	N	VAL	A	85	-8.375	19.551	25.196	1.000	16.89
ATOM	541	CA	VAL	A	85	-8.423	18.097	25.114	1.000	16.58
ATOM	542	CB	VAL	A	85	-7.184	17.483	24.455	1.000	22.94
ATOM	543	CG1	VAL	A	85	-7.356	15.966	24.274	1.000	23.40
ATOM	544	CG2	VAL	A	85	-6.893	18.086	23.091	1.000	17.65
ATOM	545	C	VAL	A	85	-8.595	17.535	26.523	1.000	19.64
ATOM	546	O	VAL	A	85	-7.844	17.914	27.424	1.000	19.96
ATOM	547	N	LYS	A	86	-9.550	16.650	26.756	1.000	17.33
ATOM	548	CA	LYS	A	86	-9.719	16.095	28.096	1.000	23.43
ATOM	549	CB	LYS	A	86	-11.191	16.082	28.526	1.000	27.56
ATOM	550	CG	LYS	A	86	-11.884	17.432	28.490	1.000	32.74
ATOM	551	CD	LYS	A	86	-13.319	17.288	28.987	1.000	42.78
ATOM	552	CE	LYS	A	86	-14.275	18.120	28.145	1.000	53.05
ATOM	553	NZ	LYS	A	86	-14.205	19.569	28.476	1.000	47.90
ATOM	554	C	LYS	A	86	-9.213	14.660	28.171	1.000	23.69
ATOM	555	O	LYS	A	86	-9.417	13.887	27.241	1.000	24.18
ATOM	556	N	LEU	A	87	-8.580	14.294	29.273	1.000	21.05
ATOM	557	CA	LEU	A	87	-8.225	12.906	29.504	1.000	18.28
ATOM	558	CB	LEU	A	87	-7.106	12.861	30.540	1.000	19.01
ATOM	559	CG	LEU	A	87	-5.824	13.608	30.146	1.000	24.48
ATOM	560	CD1	LEU	A	87	-4.865	13.612	31.326	1.000	21.86
ATOM	561	CD2	LEU	A	87	-5.175	12.994	28.916	1.000	21.83
ATOM	562	C	LEU	A	87	-9.433	12.132	30.001	1.000	30.80
ATOM	563	O	LEU	A	87	-10.293	12.739	30.652	1.000	27.84
ATOM	564	N	SER	A	88	-9.561	10.832	29.745	1.000	25.76
ATOM	565	CA	SER	A	88	-10.662	10.132	30.429	1.000	30.68
ATOM	566	CB	SER	A	88	-10.751	8.668	29.990	1.000	25.39
ATOM	567	OG	SER	A	88	-9.581	7.992	30.416	1.000	28.79
ATOM	568	C	SER	A	88	-10.554	10.163	31.955	1.000	34.04
ATOM	569	O	SER	A	88	-9.497	10.278	32.577	1.000	30.33
ATOM	570	N	ASN	A	89	-11.728	10.055	32.566	1.000	43.34
ATOM	571	CA	ASN	A	89	-11.976	10.144	33.991	1.000	56.50

**FIGURE 212**



ATOM	572	CB	ASN	A	89	-13.369	9.595	34.329	1.000	60.50
ATOM	573	CG	ASN	A	89	-13.557	8.127	34.024	1.000	66.77
ATOM	574	OD1	ASN	A	89	-12.606	7.351	33.952	1.000	60.44
ATOM	575	ND2	ASN	A	89	-14.807	7.703	33.844	1.000	70.97
ATOM	576	C	ASN	A	89	-10.926	9.410	34.821	1.000	65.63
ATOM	577	O	ASN	A	89	-10.996	9.390	36.052	1.000	72.13
ATOM	578	N	SER	A	96	-8.513	15.291	37.171	1.000	39.19
ATOM	579	CA	SER	A	96	-7.743	14.211	36.560	1.000	29.84
ATOM	580	CB	SER	A	96	-8.043	12.853	37.183	1.000	29.33
ATOM	581	OG	SER	A	96	-9.336	12.376	36.866	1.000	31.86
ATOM	582	C	SER	A	96	-7.971	14.200	35.049	1.000	25.03
ATOM	583	O	SER	A	96	-7.285	13.420	34.378	1.000	30.76
ATOM	584	N	ASP	A	97	-8.874	15.033	34.527	1.000	26.35
ATOM	585	CA	ASP	A	97	-9.072	15.047	33.069	1.000	23.38
ATOM	586	CB	ASP	A	97	-10.495	15.418	32.661	1.000	21.60
ATOM	587	CG	ASP	A	97	-10.928	16.834	32.933	1.000	26.73
ATOM	588	OD1	ASP	A	97	-10.115	17.686	33.354	1.000	26.07
ATOM	589	OD2	ASP	A	97	-12.136	17.107	32.701	1.000	29.59
ATOM	590	C	ASP	A	97	-8.112	16.015	32.379	1.000	28.59
ATOM	591	O	ASP	A	97	-8.144	16.087	31.149	1.000	22.81
ATOM	592	N	TYR	A	98	-7.316	16.753	33.150	1.000	24.51
ATOM	593	CA	TYR	A	98	-6.573	17.864	32.576	1.000	18.45
ATOM	594	CB	TYR	A	98	-6.287	18.947	33.663	1.000	21.47
ATOM	595	CG	TYR	A	98	-5.566	20.114	33.013	1.000	18.45
ATOM	596	CD1	TYR	A	98	-6.288	21.015	32.223	1.000	20.80
ATOM	597	CE1	TYR	A	98	-5.651	22.093	31.617	1.000	19.85
ATOM	598	CZ	TYR	A	98	-4.300	22.277	31.775	1.000	20.41
ATOM	599	OH	TYR	A	98	-3.617	23.313	31.194	1.000	18.24
ATOM	600	CE2	TYR	A	98	-3.554	21.399	32.546	1.000	19.23
ATOM	601	CD2	TYR	A	98	-4.206	20.342	33.147	1.000	19.12
ATOM	602	C	TYR	A	98	-5.263	17.498	31.918	1.000	19.64
ATOM	603	O	TYR	A	98	-4.369	16.840	32.439	1.000	20.66
ATOM	604	N	ILE	A	99	-5.119	18.053	30.711	1.000	16.91
ATOM	605	CA	ILE	A	99	-3.822	18.176	30.062	1.000	16.84
ATOM	606	CB	ILE	A	99	-3.536	17.002	29.113	1.000	17.82
ATOM	607	CG1	ILE	A	99	-2.137	16.977	28.518	1.000	15.01
ATOM	608	CD1	ILE	A	99	-1.789	15.688	27.785	1.000	15.78
ATOM	609	CG2	ILE	A	99	-4.615	16.953	28.023	1.000	17.57
ATOM	610	C	ILE	A	99	-3.766	19.520	29.325	1.000	15.16
ATOM	611	O	ILE	A	99	-4.767	20.020	28.812	1.000	17.38
ATOM	612	N	ASN	A	100	-2.587	20.120	29.308	1.000	17.52
ATOM	613	CA	ASN	A	100	-2.392	21.383	28.584	1.000	13.18
ATOM	614	CB	ASN	A	100	-1.125	22.085	29.028	1.000	14.04
ATOM	615	CG	ASN	A	100	-1.059	23.494	28.450	1.000	15.18
ATOM	616	OD1	ASN	A	100	-1.331	23.713	27.280	1.000	18.72
ATOM	617	ND2	ASN	A	100	-0.702	24.455	29.274	1.000	16.16
ATOM	618	C	ASN	A	100	-2.333	21.054	27.090	1.000	12.55
ATOM	619	O	ASN	A	100	-1.244	20.809	26.544	1.000	15.92
ATOM	620	N	ALA	A	101	-3.521	21.008	26.492	1.000	15.34
ATOM	621	CA	ALA	A	101	-3.655	20.605	25.088	1.000	18.55
ATOM	622	CB	ALA	A	101	-3.556	19.090	24.924	1.000	16.55
ATOM	623	C	ALA	A	101	-4.971	21.137	24.527	1.000	13.59

FIGURE 213

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ATOM	624	O	ALA	A	101	-5.924	21.365	25.274	1.000	16.49
ATOM	625	N	SER	A	102	-5.001	21.341	23.211	1.000	13.49
ATOM	626	CA	SER	A	102	-6.108	21.993	22.553	1.000	16.27
ATOM	627	CB	SER	A	102	-5.855	23.491	22.338	1.000	21.21
ATOM	628	OG	SER	A	102	-5.352	24.131	23.503	1.000	17.32
ATOM	629	C	SER	A	102	-6.356	21.367	21.169	1.000	14.55
ATOM	630	O	SER	A	102	-5.410	21.018	20.464	1.000	15.20
ATOM	631	N	TYR	A	103	-7.636	21.254	20.835	1.000	16.64
ATOM	632	CA	TYR	A	103	-8.048	20.802	19.512	1.000	14.77
ATOM	633	CB	TYR	A	103	-9.467	20.239	19.531	1.000	18.66
ATOM	634	CG	TYR	A	103	-9.703	18.944	20.270	1.000	18.68
ATOM	635	CD1	TYR	A	103	-9.140	17.745	19.852	1.000	16.61
ATOM	636	CE1	TYR	A	103	-9.358	16.546	20.528	1.000	17.11
ATOM	637	CZ	TYR	A	103	-10.159	16.548	21.648	1.000	20.45
ATOM	638	OH	TYR	A	103	-10.386	15.378	22.329	1.000	23.33
ATOM	639	CE2	TYR	A	103	-10.730	17.732	22.079	1.000	22.73
ATOM	640	CD2	TYR	A	103	-10.517	18.922	21.410	1.000	19.22
ATOM	641	C	TYR	A	103	-7.987	21.941	18.505	1.000	13.95
ATOM	642	O	TYR	A	103	-8.391	23.073	18.745	1.000	19.80
ATOM	643	N	ILE	A	104	-7.482	21.618	17.316	1.000	18.42
ATOM	644	CA	ILE	A	104	-7.360	22.569	16.229	1.000	18.12
ATOM	645	CB	ILE	A	104	-5.872	22.884	15.979	1.000	23.14
ATOM	646	CG1	ILE	A	104	-5.070	23.233	17.226	1.000	28.92
ATOM	647	CD1	ILE	A	104	-5.524	24.493	17.940	1.000	29.26
ATOM	648	CG2	ILE	A	104	-5.741	24.005	14.967	1.000	26.42
ATOM	649	C	ILE	A	104	-7.946	22.001	14.952	1.000	23.75
ATOM	650	O	ILE	A	104	-7.672	20.852	14.601	1.000	21.79
ATOM	651	N	PRO	A	105	-8.754	22.779	14.241	1.000	28.20
ATOM	652	CA	PRO	A	105	-9.258	22.365	12.917	1.000	23.95
ATOM	653	CB	PRO	A	105	-10.391	23.355	12.645	1.000	31.38
ATOM	654	CG	PRO	A	105	-10.630	24.049	13.941	1.000	40.77
ATOM	655	CD	PRO	A	105	-9.285	24.093	14.643	1.000	28.64
ATOM	656	C	PRO	A	105	-8.174	22.464	11.860	1.000	28.29
ATOM	657	O	PRO	A	105	-7.183	23.199	11.926	1.000	24.10
ATOM	658	N	GLY	A	106	-8.320	21.674	10.798	1.000	25.13
ATOM	659	CA	GLY	A	106	-7.343	21.757	9.710	1.000	22.26
ATOM	660	C	GLY	A	106	-8.127	21.803	8.403	1.000	28.91
ATOM	661	O	GLY	A	106	-9.318	22.118	8.467	1.000	26.90
ATOM	662	N	ASN	A	107	-7.481	21.487	7.285	1.000	25.90
ATOM	663	CA	ASN	A	107	-8.184	21.653	6.010	1.000	35.70
ATOM	664	CB	ASN	A	107	-7.264	21.551	4.794	1.000	32.05
ATOM	665	CG	ASN	A	107	-6.326	22.729	4.615	1.000	27.43
ATOM	666	OD1	ASN	A	107	-5.615	22.864	3.606	1.000	22.24
ATOM	667	ND2	ASN	A	107	-6.328	23.567	5.634	1.000	26.27
ATOM	668	C	ASN	A	107	-9.273	20.581	5.877	1.000	38.65
ATOM	669	O	ASN	A	107	-10.274	20.887	5.236	1.000	46.02
ATOM	670	N	ASN	A	108	-9.002	19.431	6.465	1.000	30.37
ATOM	671	CA	ASN	A	108	-9.700	18.170	6.282	1.000	36.09
ATOM	672	CB	ASN	A	108	-8.676	17.017	6.195	1.000	40.88
ATOM	673	CG	ASN	A	108	-7.647	17.276	5.099	1.000	44.34
ATOM	674	OD1	ASN	A	108	-7.988	17.259	3.914	1.000	26.73
ATOM	675	ND2	ASN	A	108	-6.392	17.525	5.466	1.000	23.01

**FIGURE 214**

ATOM	676	C	ASN	A	108	-10.712	17.862	7.369	1.000	27.84
ATOM	677	O	ASN	A	108	-11.746	17.240	7.087	1.000	45.47
ATOM	678	N	PHE	A	109	-10.515	18.262	8.614	1.000	28.68
ATOM	679	CA	PHE	A	109	-11.601	17.986	9.569	1.000	29.14
ATOM	680	CB	PHE	A	109	-11.727	16.503	9.837	1.000	33.67
ATOM	681	CG	PHE	A	109	-10.501	15.678	10.128	1.000	32.21
ATOM	682	CD1	PHE	A	109	-9.720	15.199	9.088	1.000	36.73
ATOM	683	CE1	PHE	A	109	-8.604	14.419	9.325	1.000	33.86
ATOM	684	CZ	PHE	A	109	-8.275	14.120	10.633	1.000	42.76
ATOM	685	CE2	PHE	A	109	-9.036	14.590	11.683	1.000	37.98
ATOM	686	CD2	PHE	A	109	-10.143	15.376	11.430	1.000	37.01
ATOM	687	C	PHE	A	109	-11.450	18.785	10.856	1.000	28.59
ATOM	688	O	PHE	A	109	-10.493	19.529	11.101	1.000	25.57
ATOM	689	N	ARG	A	110	-12.457	18.692	11.728	1.000	29.57
ATOM	690	CA	ARG	A	110	-12.560	19.633	12.835	1.000	29.56
ATOM	691	CB	ARG	A	110	-13.912	19.447	13.560	1.000	39.08
ATOM	692	CG	ARG	A	110	-15.115	19.581	12.647	1.000	51.99
ATOM	693	CD	ARG	A	110	-15.714	20.978	12.671	1.000	60.61
ATOM	694	NE	ARG	A	110	-16.438	21.295	11.439	1.000	56.28
ATOM	695	CZ	ARG	A	110	-17.049	22.446	11.187	1.000	59.30
ATOM	696	NH1	ARG	A	110	-17.685	22.657	10.040	1.000	45.23
ATOM	697	NH2	ARG	A	110	-17.032	23.413	12.100	1.000	84.92
ATOM	698	C	ARG	A	110	-11.462	19.550	13.898	1.000	32.92
ATOM	699	O	ARG	A	110	-10.952	20.588	14.359	1.000	36.08
ATOM	700	N	ARG	A	111	-11.163	18.325	14.281	1.000	28.03
ATOM	701	CA	ARG	A	111	-10.152	17.978	15.275	1.000	26.59
ATOM	702	CB	ARG	A	111	-10.714	17.032	16.339	1.000	33.75
ATOM	703	CG	ARG	A	111	-11.497	17.792	17.422	1.000	39.79
ATOM	704	CD	ARG	A	111	-12.543	16.891	18.038	1.000	40.61
ATOM	705	NE	ARG	A	111	-13.133	17.383	19.283	1.000	34.63
ATOM	706	CZ	ARG	A	111	-13.380	16.499	20.268	1.000	44.09
ATOM	707	NH1	ARG	A	111	-13.087	15.209	20.117	1.000	40.26
ATOM	708	NH2	ARG	A	111	-13.915	16.924	21.402	1.000	48.99
ATOM	709	C	ARG	A	111	-8.977	17.326	14.564	1.000	26.23
ATOM	710	O	ARG	A	111	-8.583	16.195	14.813	1.000	22.76
ATOM	711	N	GLU	A	112	-8.437	18.086	13.603	1.000	18.42
ATOM	712	CA	GLU	A	112	-7.400	17.493	12.752	1.000	19.07
ATOM	713	CB	GLU	A	112	-7.339	18.364	11.470	1.000	13.71
ATOM	714	CG	GLU	A	112	-6.317	17.831	10.484	1.000	14.61
ATOM	715	CD	GLU	A	112	-6.654	18.208	9.049	1.000	20.17
ATOM	716	OE1	GLU	A	112	-7.701	18.836	8.814	1.000	23.80
ATOM	717	OE2	GLU	A	112	-5.819	17.872	8.184	1.000	20.53
ATOM	718	C	GLU	A	112	-6.059	17.425	13.457	1.000	13.05
ATOM	719	O	GLU	A	112	-5.177	16.583	13.179	1.000	16.04
ATOM	720	N	TYR	A	113	-5.888	18.365	14.392	1.000	14.44
ATOM	721	CA	TYR	A	113	-4.660	18.455	15.170	1.000	14.56
ATOM	722	CB	TYR	A	113	-3.783	19.667	14.843	1.000	13.32
ATOM	723	CG	TYR	A	113	-3.500	19.908	13.376	1.000	17.76
ATOM	724	CD1	TYR	A	113	-2.393	19.395	12.721	1.000	18.07
ATOM	725	CE1	TYR	A	113	-2.151	19.630	11.364	1.000	14.90
ATOM	726	CZ	TYR	A	113	-3.049	20.406	10.658	1.000	18.66
ATOM	727	OH	TYR	A	113	-2.860	20.666	9.306	1.000	17.72

**FIGURE 215**

ATOM	728	CE2	TYR	A	113	-4.162	20.925	11.293	1.000	20.77
ATOM	729	CD2	TYR	A	113	-4.392	20.683	12.633	1.000	15.75
ATOM	730	C	TYR	A	113	-4.980	18.563	16.668	1.000	15.81
ATOM	731	O	TYR	A	113	-5.993	19.136	17.046	1.000	16.02
ATOM	732	N	ILE	A	114	-4.051	18.047	17.461	1.000	12.86
ATOM	733	CA	ILE	A	114	-4.004	18.364	18.882	1.000	12.93
ATOM	734	CB	ILE	A	114	-4.060	17.088	19.740	1.000	17.81
ATOM	735	CG1	ILE	A	114	-5.461	16.478	19.730	1.000	20.46
ATOM	736	CD1	ILE	A	114	-5.604	15.068	20.250	1.000	18.86
ATOM	737	CG2	ILE	A	114	-3.565	17.380	21.156	1.000	18.53
ATOM	738	C	ILE	A	114	-2.712	19.118	19.104	1.000	14.86
ATOM	739	O	ILE	A	114	-1.650	18.594	18.750	1.000	17.75
ATOM	740	N	VAL	A	115	-2.797	20.311	19.631	1.000	16.67
ATOM	741	CA	VAL	A	115	-1.600	21.072	19.972	1.000	13.98
ATOM	742	CB	VAL	A	115	-1.749	22.543	19.584	1.000	14.73
ATOM	743	CG1	VAL	A	115	-0.680	23.353	20.303	1.000	27.44
ATOM	744	CG2	VAL	A	115	-1.659	22.643	18.059	1.000	22.61
ATOM	745	C	VAL	A	115	-1.360	20.975	21.472	1.000	13.84
ATOM	746	O	VAL	A	115	-2.303	21.113	22.246	1.000	17.38
ATOM	747	N	THR	A	116	-0.116	20.748	21.863	1.000	13.55
ATOM	748	CA	THR	A	116	0.108	20.593	23.304	1.000	17.85
ATOM	749	CB	THR	A	116	-0.042	19.101	23.682	1.000	16.90
ATOM	750	OG1	THR	A	116	-0.019	18.974	25.104	1.000	16.67
ATOM	751	CG2	THR	A	116	1.092	18.252	23.118	1.000	18.44
ATOM	752	C	THR	A	116	1.462	21.186	23.681	1.000	14.01
ATOM	753	O	THR	A	116	2.258	21.452	22.775	1.000	13.95
ATOM	754	N	GLN	A	117	1.702	21.380	24.961	1.000	15.16
ATOM	755	CA	GLN	A	117	3.032	21.825	25.403	1.000	20.32
ATOM	756	CB	GLN	A	117	2.866	22.383	26.829	1.000	17.18
ATOM	757	CG	GLN	A	117	2.751	21.245	27.841	1.000	23.10
ATOM	758	CD	GLN	A	117	2.459	21.700	29.254	1.000	22.85
ATOM	759	OE1	GLN	A	117	2.255	22.879	29.560	1.000	19.09
ATOM	760	NE2	GLN	A	117	2.428	20.740	30.181	1.000	25.28
ATOM	761	C	GLN	A	117	4.051	20.714	25.344	1.000	22.35
ATOM	762	O	GLN	A	117	3.743	19.524	25.186	1.000	21.90
ATOM	763	N	GLY	A	118	5.348	20.995	25.467	1.000	20.42
ATOM	764	CA	GLY	A	118	6.280	19.856	25.478	1.000	16.32
ATOM	765	C	GLY	A	118	6.111	19.186	26.830	1.000	14.48
ATOM	766	O	GLY	A	118	6.206	19.869	27.834	1.000	20.82
ATOM	767	N	PRO	A	119	5.850	17.888	26.898	1.000	19.04
ATOM	768	CA	PRO	A	119	5.598	17.210	28.158	1.000	17.15
ATOM	769	CB	PRO	A	119	5.626	15.716	27.778	1.000	17.56
ATOM	770	CG	PRO	A	119	5.109	15.747	26.360	1.000	16.78
ATOM	771	CD	PRO	A	119	5.766	16.966	25.749	1.000	16.98
ATOM	772	C	PRO	A	119	6.686	17.470	29.215	1.000	14.53
ATOM	773	O	PRO	A	119	7.852	17.580	28.857	1.000	20.14
ATOM	774	N	LEU	A	120	6.193	17.562	30.436	1.000	20.34
ATOM	775	CA	LEU	A	120	7.014	17.632	31.639	1.000	26.17
ATOM	776	CB	LEU	A	120	6.259	18.379	32.752	1.000	18.48
ATOM	777	CG	LEU	A	120	6.077	19.879	32.495	1.000	23.01
ATOM	778	CD1	LEU	A	120	4.937	20.427	33.332	1.000	23.31
ATOM	779	CD2	LEU	A	120	7.399	20.586	32.764	1.000	24.84

**FIGURE 216**

ATOM	780	C	LEU	A	120	7.358	16.227	32.124	1.000	25.96
ATOM	781	O	LEU	A	120	6.667	15.274	31.750	1.000	21.42
ATOM	782	N	PRO	A	121	8.381	16.072	32.957	1.000	29.05
ATOM	783	CA	PRO	A	121	8.595	14.786	33.629	1.000	25.75
ATOM	784	CB	PRO	A	121	9.597	15.156	34.739	1.000	25.40
ATOM	785	CG	PRO	A	121	10.409	16.244	34.108	1.000	27.02
ATOM	786	CD	PRO	A	121	9.405	17.064	33.325	1.000	27.21
ATOM	787	C	PRO	A	121	7.317	14.251	34.258	1.000	22.30
ATOM	788	O	PRO	A	121	7.004	13.056	34.125	1.000	25.28
ATOM	789	N	GLY	A	122	6.557	15.136	34.914	1.000	18.79
ATOM	790	CA	GLY	A	122	5.347	14.719	35.583	1.000	16.68
ATOM	791	C	GLY	A	122	4.075	14.740	34.751	1.000	28.03
ATOM	792	O	GLY	A	122	3.020	14.526	35.376	1.000	24.04
ATOM	793	N	THR	A	123	4.110	14.977	33.436	1.000	20.34
ATOM	794	CA	THR	A	123	2.930	14.937	32.578	1.000	14.07
ATOM	795	CB	THR	A	123	2.534	16.297	31.970	1.000	14.80
ATOM	796	OG1	THR	A	123	3.597	16.765	31.130	1.000	20.06
ATOM	797	CG2	THR	A	123	2.290	17.355	33.043	1.000	21.03
ATOM	798	C	THR	A	123	3.121	13.982	31.401	1.000	17.25
ATOM	799	O	THR	A	123	2.189	13.769	30.625	1.000	19.21
ATOM	800	N	LYS	A	124	4.290	13.385	31.258	1.000	17.35
ATOM	801	CA	LYS	A	124	4.591	12.474	30.157	1.000	20.84
ATOM	802	CB	LYS	A	124	6.056	12.057	30.163	1.000	23.80
ATOM	803	CG	LYS	A	124	6.574	11.185	31.268	1.000	22.00
ATOM	804	CD	LYS	A	124	8.053	10.832	31.082	1.000	30.29
ATOM	805	CE	LYS	A	124	8.441	9.720	32.044	1.000	45.34
ATOM	806	NZ	LYS	A	124	9.868	9.696	32.452	1.000	41.63
ATOM	807	C	LYS	A	124	3.636	11.275	30.163	1.000	19.38
ATOM	808	O	LYS	A	124	3.239	10.855	29.071	1.000	19.48
ATOM	809	N	ASP	A	125	3.233	10.748	31.314	1.000	20.33
ATOM	810	CA	ASP	A	125	2.250	9.666	31.286	1.000	20.85
ATOM	811	CB	ASP	A	125	2.042	9.048	32.667	1.000	21.24
ATOM	812	CG	ASP	A	125	3.216	8.294	33.256	1.000	23.35
ATOM	813	OD1	ASP	A	125	4.196	8.028	32.528	1.000	20.34
ATOM	814	OD2	ASP	A	125	3.124	7.972	34.488	1.000	20.58
ATOM	815	C	ASP	A	125	0.903	10.155	30.758	1.000	18.95
ATOM	816	O	ASP	A	125	0.264	9.434	29.979	1.000	17.28
ATOM	817	N	ASP	A	126	0.462	11.327	31.199	1.000	20.58
ATOM	818	CA	ASP	A	126	-0.740	11.974	30.672	1.000	16.25
ATOM	819	CB	ASP	A	126	-0.971	13.331	31.325	1.000	22.07
ATOM	820	CG	ASP	A	126	-1.198	13.393	32.813	1.000	35.20
ATOM	821	OD1	ASP	A	126	-1.760	12.424	33.363	1.000	28.11
ATOM	822	OD2	ASP	A	126	-0.833	14.421	33.448	1.000	29.77
ATOM	823	C	ASP	A	126	-0.636	12.184	29.153	1.000	14.70
ATOM	824	O	ASP	A	126	-1.589	11.970	28.403	1.000	17.56
ATOM	825	N	PHE	A	127	0.509	12.629	28.658	1.000	16.52
ATOM	826	CA	PHE	A	127	0.641	12.855	27.203	1.000	16.00
ATOM	827	CB	PHE	A	127	2.039	13.358	26.853	1.000	16.31
ATOM	828	CG	PHE	A	127	2.432	13.364	25.376	1.000	15.99
ATOM	829	CD1	PHE	A	127	2.178	14.498	24.615	1.000	18.51
ATOM	830	CE1	PHE	A	127	2.518	14.549	23.273	1.000	10.71
ATOM	831	CZ	PHE	A	127	3.108	13.449	22.681	1.000	15.27

FIGURE 217

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ATOM	832	CE2	PHE	A	127	3.382	12.289	23.403	1.000	19.04
ATOM	833	CD2	PHE	A	127	3.061	12.299	24.747	1.000	16.38
ATOM	834	C	PHE	A	127	0.385	11.547	26.468	1.000	22.45
ATOM	835	O	PHE	A	127	-0.332	11.482	25.478	1.000	16.59
ATOM	836	N	TRP	A	128	1.052	10.479	26.939	1.000	15.18
ATOM	837	CA	TRP	A	128	0.896	9.221	26.182	1.000	16.47
ATOM	838	CB	TRP	A	128	1.938	8.201	26.653	1.000	14.81
ATOM	839	CG	TRP	A	128	3.329	8.492	26.170	1.000	17.83
ATOM	840	CD1	TRP	A	128	4.444	8.788	26.892	1.000	15.04
ATOM	841	NE1	TRP	A	128	5.526	8.987	26.043	1.000	16.38
ATOM	842	CE2	TRP	A	128	5.110	8.818	24.749	1.000	15.72
ATOM	843	CD2	TRP	A	128	3.738	8.509	24.787	1.000	15.19
ATOM	844	CE3	TRP	A	128	3.062	8.282	23.587	1.000	16.34
ATOM	845	CZ3	TRP	A	128	3.760	8.373	22.395	1.000	18.84
ATOM	846	CH2	TRP	A	128	5.126	8.684	22.375	1.000	18.88
ATOM	847	CZ2	TRP	A	128	5.797	8.906	23.544	1.000	19.59
ATOM	848	C	TRP	A	128	-0.516	8.680	26.335	1.000	18.33
ATOM	849	O	TRP	A	128	-1.095	8.039	25.441	1.000	17.84
ATOM	850	N	LYS	A	129	-1.136	8.925	27.490	1.000	16.01
ATOM	851	CA	LYS	A	129	-2.552	8.577	27.669	1.000	15.83
ATOM	852	CB	LYS	A	129	-2.959	8.905	29.107	1.000	16.11
ATOM	853	CG	LYS	A	129	-4.428	8.639	29.383	1.000	22.20
ATOM	854	CD	LYS	A	129	-4.734	8.820	30.866	1.000	21.45
ATOM	855	CE	LYS	A	129	-6.258	8.852	31.065	1.000	26.32
ATOM	856	NZ	LYS	A	129	-6.584	9.011	32.510	1.000	34.60
ATOM	857	C	LYS	A	129	-3.418	9.305	26.655	1.000	22.77
ATOM	858	O	LYS	A	129	-4.278	8.695	26.000	1.000	18.99
ATOM	859	N	MET	A	130	-3.188	10.621	26.479	1.000	15.75
ATOM	860	CA	MET	A	130	-3.893	11.366	25.434	1.000	13.41
ATOM	861	CB	MET	A	130	-3.416	12.840	25.476	1.000	16.79
ATOM	862	CG	MET	A	130	-4.077	13.682	24.379	1.000	18.60
ATOM	863	SD	MET	A	130	-3.548	15.406	24.457	1.000	18.90
ATOM	864	CE	MET	A	130	-1.867	15.262	23.906	1.000	14.57
ATOM	865	C	MET	A	130	-3.662	10.816	24.035	1.000	16.03
ATOM	866	O	MET	A	130	-4.577	10.636	23.228	1.000	21.60
ATOM	867	N	VAL	A	131	-2.421	10.513	23.688	1.000	16.52
ATOM	868	CA	VAL	A	131	-2.096	9.907	22.395	1.000	17.62
ATOM	869	CB	VAL	A	131	-0.576	9.659	22.293	1.000	15.16
ATOM	870	CG1	VAL	A	131	-0.228	8.757	21.118	1.000	16.01
ATOM	871	CG2	VAL	A	131	0.162	10.996	22.200	1.000	14.77
ATOM	872	C	VAL	A	131	-2.891	8.614	22.198	1.000	14.71
ATOM	873	O	VAL	A	131	-3.480	8.392	21.126	1.000	17.34
ATOM	874	N	TRP	A	132	-2.952	7.787	23.223	1.000	14.88
ATOM	875	CA	TRP	A	132	-3.697	6.516	23.124	1.000	22.11
ATOM	876	CB	TRP	A	132	-3.433	5.620	24.339	1.000	22.48
ATOM	877	CG	TRP	A	132	-4.168	4.301	24.280	1.000	27.32
ATOM	878	CD1	TRP	A	132	-5.262	3.909	25.019	1.000	25.14
ATOM	879	NE1	TRP	A	132	-5.611	2.623	24.645	1.000	23.87
ATOM	880	CE2	TRP	A	132	-4.763	2.172	23.681	1.000	18.18
ATOM	881	CD2	TRP	A	132	-3.834	3.198	23.418	1.000	18.05
ATOM	882	CE3	TRP	A	132	-2.840	2.999	22.460	1.000	22.17
ATOM	883	CZ3	TRP	A	132	-2.774	1.795	21.772	1.000	28.54

**FIGURE 218**

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ATOM	884	CH2	TRP	A	132	-3.721	0.806	22.066	1.000	23.87
ATOM	885	CZ2	TRP	A	132	-4.696	0.966	22.993	1.000	20.35
ATOM	886	C	TRP	A	132	-5.193	6.750	22.947	1.000	17.05
ATOM	887	O	TRP	A	132	-5.818	6.256	21.987	1.000	20.64
ATOM	888	N	GLU	A	133	-5.791	7.519	23.839	1.000	14.90
ATOM	889	CA	GLU	A	133	-7.219	7.778	23.820	1.000	17.45
ATOM	890	CB	GLU	A	133	-7.610	8.589	25.078	1.000	18.05
ATOM	891	CG	GLU	A	133	-7.397	7.760	26.341	1.000	19.08
ATOM	892	CD	GLU	A	133	-7.868	8.505	27.588	1.000	27.21
ATOM	893	OE1	GLU	A	133	-8.176	9.707	27.515	1.000	24.17
ATOM	894	OE2	GLU	A	133	-7.926	7.874	28.661	1.000	32.77
ATOM	895	C	GLU	A	133	-7.680	8.510	22.579	1.000	20.80
ATOM	896	O	GLU	A	133	-8.825	8.300	22.156	1.000	22.88
ATOM	897	N	GLN	A	134	-6.829	9.358	22.026	1.000	17.73
ATOM	898	CA	GLN	A	134	-7.237	10.221	20.900	1.000	16.57
ATOM	899	CB	GLN	A	134	-6.549	11.579	21.008	1.000	14.29
ATOM	900	CG	GLN	A	134	-6.990	12.288	22.299	1.000	16.77
ATOM	901	CD	GLN	A	134	-8.452	12.650	22.274	1.000	21.52
ATOM	902	OE1	GLN	A	134	-9.006	13.127	21.277	1.000	27.29
ATOM	903	NE2	GLN	A	134	-9.111	12.430	23.414	1.000	22.22
ATOM	904	C	GLN	A	134	-6.950	9.599	19.542	1.000	19.42
ATOM	905	O	GLN	A	134	-7.196	10.269	18.542	1.000	18.38
ATOM	906	N	ASN	A	135	-6.467	8.362	19.537	1.000	19.05
ATOM	907	CA	ASN	A	135	-6.213	7.579	18.343	1.000	19.16
ATOM	908	CB	ASN	A	135	-7.480	7.376	17.494	1.000	20.31
ATOM	909	CG	ASN	A	135	-8.541	6.596	18.257	1.000	31.86
ATOM	910	OD1	ASN	A	135	-8.283	5.493	18.725	1.000	33.23
ATOM	911	ND2	ASN	A	135	-9.742	7.149	18.391	1.000	30.19
ATOM	912	C	ASN	A	135	-5.155	8.263	17.482	1.000	17.39
ATOM	913	O	ASN	A	135	-5.206	8.264	16.256	1.000	22.39
ATOM	914	N	VAL	A	136	-4.196	8.866	18.167	1.000	14.13
ATOM	915	CA	VAL	A	136	-3.123	9.563	17.457	1.000	16.02
ATOM	916	CB	VAL	A	136	-2.417	10.541	18.433	1.000	18.99
ATOM	917	CG1	VAL	A	136	-1.100	11.000	17.793	1.000	20.47
ATOM	918	CG2	VAL	A	136	-3.330	11.692	18.794	1.000	13.05
ATOM	919	C	VAL	A	136	-2.120	8.585	16.871	1.000	18.76
ATOM	920	O	VAL	A	136	-1.653	7.669	17.563	1.000	17.38
ATOM	921	N	HIS	A	137	-1.756	8.745	15.591	1.000	15.53
ATOM	922	CA	HIS	A	137	-0.715	7.888	15.035	1.000	18.61
ATOM	923	CB	HIS	A	137	-1.197	7.109	13.799	1.000	19.72
ATOM	924	CG	HIS	A	137	-2.274	6.119	14.090	1.000	22.80
ATOM	925	ND1	HIS	A	137	-3.478	6.436	14.669	1.000	26.95
ATOM	926	CE1	HIS	A	137	-4.209	5.343	14.795	1.000	30.61
ATOM	927	NE2	HIS	A	137	-3.516	4.331	14.319	1.000	27.83
ATOM	928	CD2	HIS	A	137	-2.301	4.778	13.869	1.000	31.20
ATOM	929	C	HIS	A	137	0.523	8.677	14.620	1.000	19.42
ATOM	930	O	HIS	A	137	1.534	8.071	14.287	1.000	19.32
ATOM	931	N	ASN	A	138	0.469	10.009	14.624	1.000	18.64
ATOM	932	CA	ASN	A	138	1.609	10.809	14.197	1.000	16.59
ATOM	933	CB	ASN	A	138	1.368	11.460	12.823	1.000	14.79
ATOM	934	CG	ASN	A	138	1.182	10.388	11.774	1.000	14.32
ATOM	935	OD1	ASN	A	138	0.070	10.154	11.277	1.000	23.35

**FIGURE 219**

ATOM	936	ND2	ASN	A	138	2.272	9.719	11.442	1.000	15.72
ATOM	937	C	ASN	A	138	1.882	11.894	15.224	1.000	17.49
ATOM	938	O	ASN	A	138	0.923	12.540	15.639	1.000	16.64
ATOM	939	N	ILE	A	139	3.138	12.081	15.595	1.000	13.57
ATOM	940	CA	ILE	A	139	3.492	13.222	16.443	1.000	13.49
ATOM	941	CB	ILE	A	139	4.046	12.705	17.788	1.000	15.96
ATOM	942	CG1	ILE	A	139	3.032	11.892	18.597	1.000	17.56
ATOM	943	CD1	ILE	A	139	3.647	11.054	19.710	1.000	16.60
ATOM	944	CG2	ILE	A	139	4.641	13.849	18.601	1.000	17.93
ATOM	945	C	ILE	A	139	4.545	14.100	15.776	1.000	16.72
ATOM	946	O	ILE	A	139	5.507	13.555	15.211	1.000	18.97
ATOM	947	N	VAL	A	140	4.378	15.416	15.843	1.000	15.29
ATOM	948	CA	VAL	A	140	5.330	16.361	15.282	1.000	15.83
ATOM	949	CB	VAL	A	140	4.672	17.254	14.202	1.000	17.91
ATOM	950	CG1	VAL	A	140	5.691	18.249	13.647	1.000	18.30
ATOM	951	CG2	VAL	A	140	4.073	16.418	13.086	1.000	14.97
ATOM	952	C	VAL	A	140	5.892	17.200	16.427	1.000	15.79
ATOM	953	O	VAL	A	140	5.144	17.816	17.200	1.000	16.44
ATOM	954	N	MET	A	141	7.208	17.203	16.579	1.000	16.25
ATOM	955	CA	MET	A	141	7.900	17.899	17.660	1.000	21.24
ATOM	956	CB	MET	A	141	8.745	16.916	18.480	1.000	18.76
ATOM	957	CG	MET	A	141	9.555	17.528	19.619	1.000	15.74
ATOM	958	SD	MET	A	141	10.162	16.187	20.709	1.000	19.42
ATOM	959	CE	MET	A	141	11.299	17.174	21.703	1.000	22.74
ATOM	960	C	MET	A	141	8.795	18.989	17.072	1.000	14.50
ATOM	961	O	MET	A	141	9.715	18.659	16.332	1.000	19.95
ATOM	962	N	VAL	A	142	8.551	20.246	17.347	1.000	18.34
ATOM	963	CA	VAL	A	142	9.296	21.313	16.698	1.000	19.48
ATOM	964	CB	VAL	A	142	8.396	22.310	15.933	1.000	22.88
ATOM	965	CG1	VAL	A	142	9.226	22.965	14.836	1.000	28.48
ATOM	966	CG2	VAL	A	142	7.180	21.668	15.294	1.000	30.53
ATOM	967	C	VAL	A	142	10.112	22.075	17.732	1.000	23.04
ATOM	968	O	VAL	A	142	9.990	23.280	17.923	1.000	23.56
ATOM	969	N	THR	A	143	10.952	21.298	18.417	1.000	29.09
ATOM	970	CA	THR	A	143	11.788	21.805	19.501	1.000	28.45
ATOM	971	CB	THR	A	143	10.984	22.204	20.751	1.000	26.09
ATOM	972	OG1	THR	A	143	11.837	22.963	21.620	1.000	30.17
ATOM	973	CG2	THR	A	143	10.487	21.021	21.586	1.000	17.97
ATOM	974	C	THR	A	143	12.829	20.744	19.826	1.000	29.90
ATOM	975	O	THR	A	143	12.598	19.553	19.664	1.000	23.69
ATOM	976	N	GLN	A	144	14.008	21.163	20.257	1.000	35.84
ATOM	977	CA	GLN	A	144	14.993	20.221	20.781	1.000	28.60
ATOM	978	CB	GLN	A	144	16.415	20.692	20.494	1.000	27.98
ATOM	979	CG	GLN	A	144	16.871	20.426	19.061	1.000	31.33
ATOM	980	CD	GLN	A	144	18.293	20.929	18.844	1.000	44.78
ATOM	981	OE1	GLN	A	144	19.270	20.199	19.004	1.000	50.77
ATOM	982	NE2	GLN	A	144	18.424	22.197	18.474	1.000	34.02
ATOM	983	C	GLN	A	144	14.724	20.124	22.271	1.000	28.09
ATOM	984	O	GLN	A	144	14.141	21.024	22.878	1.000	24.45
ATOM	985	N	CYS	A	145	15.115	19.032	22.927	1.000	30.90
ATOM	986	CA	CYS	A	145	14.856	18.998	24.365	1.000	21.87
ATOM	987	CB	CYS	A	145	15.313	17.631	24.897	1.000	20.92

**FIGURE 220**



ATOM	988	SG	CYS	A	145	14.184	16.278	24.463	1.000	30.08
ATOM	989	C	CYS	A	145	15.601	20.109	25.083	1.000	26.27
ATOM	990	O	CYS	A	145	15.152	20.691	26.056	1.000	25.34
ATOM	991	N	VAL	A	146	16.795	20.375	24.555	1.000	27.66
ATOM	992	CA	VAL	A	146	17.696	21.367	25.097	1.000	30.29
ATOM	993	CB	VAL	A	146	18.963	20.721	25.711	1.000	36.55
ATOM	994	CG1	VAL	A	146	19.918	21.827	26.139	1.000	34.60
ATOM	995	CG2	VAL	A	146	18.601	19.795	26.859	1.000	44.23
ATOM	996	C	VAL	A	146	18.213	22.307	24.014	1.000	28.45
ATOM	997	O	VAL	A	146	18.841	21.790	23.076	1.000	40.86
ATOM	998	N	GLU	A	147	17.971	23.586	24.167	1.000	28.57
ATOM	999	CA	GLU	A	147	18.452	24.625	23.258	1.000	37.00
ATOM	1000	CB	GLU	A	147	17.283	25.228	22.467	1.000	37.35
ATOM	1001	CG	GLU	A	147	16.357	24.218	21.821	1.000	32.42
ATOM	1002	CD	GLU	A	147	15.173	24.836	21.097	1.000	36.64
ATOM	1003	OE1	GLU	A	147	14.684	25.926	21.465	1.000	28.99
ATOM	1004	OE2	GLU	A	147	14.708	24.197	20.129	1.000	29.46
ATOM	1005	C	GLU	A	147	19.191	25.727	24.028	1.000	41.02
ATOM	1006	O	GLU	A	147	18.682	26.143	25.080	1.000	35.27
ATOM	1007	N	LYS	A	148	20.338	26.211	23.559	1.000	49.35
ATOM	1008	CA	LYS	A	148	21.141	27.170	24.317	1.000	50.64
ATOM	1009	CB	LYS	A	148	20.525	28.547	24.520	1.000	54.31
ATOM	1010	CG	LYS	A	148	21.448	29.714	24.766	1.000	56.11
ATOM	1011	CD	LYS	A	148	22.091	29.906	26.107	1.000	51.55
ATOM	1012	CE	LYS	A	148	23.607	30.019	26.124	1.000	45.10
ATOM	1013	NZ	LYS	A	148	24.142	30.959	27.163	1.000	37.78
ATOM	1014	C	LYS	A	148	21.369	26.580	25.712	1.000	33.28
ATOM	1015	O	LYS	A	148	21.186	27.326	26.676	1.000	40.06
ATOM	1016	N	GLY	A	149	21.686	25.282	25.751	1.000	23.87
ATOM	1017	CA	GLY	A	149	21.915	24.686	27.061	1.000	33.16
ATOM	1018	C	GLY	A	149	20.778	24.925	28.034	1.000	34.12
ATOM	1019	O	GLY	A	149	20.966	24.992	29.241	1.000	33.20
ATOM	1020	N	ARG	A	150	19.544	25.082	27.560	1.000	43.51
ATOM	1021	CA	ARG	A	150	18.420	25.138	28.502	1.000	47.78
ATOM	1022	CB	ARG	A	150	17.913	26.553	28.703	1.000	56.08
ATOM	1023	CG	ARG	A	150	16.416	26.706	28.896	1.000	63.73
ATOM	1024	CD	ARG	A	150	16.066	28.176	29.132	1.000	69.11
ATOM	1025	NE	ARG	A	150	16.737	28.703	30.311	1.000	74.23
ATOM	1026	CZ	ARG	A	150	16.496	29.840	30.951	1.000	82.40
ATOM	1027	NH1	ARG	A	150	15.544	30.672	30.553	1.000	94.75
ATOM	1028	NH2	ARG	A	150	17.228	30.148	32.023	1.000	84.24
ATOM	1029	C	ARG	A	150	17.319	24.195	28.020	1.000	40.29
ATOM	1030	O	ARG	A	150	17.214	23.897	26.826	1.000	44.43
ATOM	1031	N	VAL	A	151	16.553	23.714	28.991	1.000	42.19
ATOM	1032	CA	VAL	A	151	15.612	22.624	28.731	1.000	40.59
ATOM	1033	CB	VAL	A	151	15.397	21.764	29.991	1.000	39.25
ATOM	1034	CG1	VAL	A	151	16.743	21.494	30.643	1.000	35.31
ATOM	1035	CG2	VAL	A	151	14.448	22.442	30.961	1.000	47.15
ATOM	1036	C	VAL	A	151	14.286	23.143	28.204	1.000	34.87
ATOM	1037	O	VAL	A	151	13.588	23.974	28.783	1.000	42.34
ATOM	1038	N	LYS	A	152	13.921	22.633	27.028	1.000	34.21
ATOM	1039	CA	LYS	A	152	12.658	23.089	26.435	1.000	32.45

FIGURE 221

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Three Dimensional Coordinates of HPTPbeta

ATOM	1040	CB	LYS	A	152	12.936	23.469	24.983	1.000	29.05
ATOM	1041	CG	LYS	A	152	13.723	24.774	24.884	1.000	40.50
ATOM	1042	CD	LYS	A	152	13.161	25.824	25.832	1.000	34.61
ATOM	1043	CE	LYS	A	152	12.890	27.143	25.135	1.000	41.44
ATOM	1044	NZ	LYS	A	152	12.672	28.247	26.118	1.000	47.72
ATOM	1045	C	LYS	A	152	11.580	22.023	26.534	1.000	32.08
ATOM	1046	O	LYS	A	152	10.386	22.284	26.459	1.000	26.51
ATOM	1047	N	CYS	A	153	11.986	20.771	26.708	1.000	26.76
ATOM	1048	CA	CYS	A	153	11.021	19.668	26.654	1.000	25.46
ATOM	1049	CB	CYS	A	153	10.682	19.380	25.189	1.000	21.77
ATOM	1050	SG	CYS	A	153	9.398	18.138	24.927	1.000	22.14
ATOM	1051	C	CYS	A	153	11.618	18.432	27.306	1.000	26.32
ATOM	1052	O	CYS	A	153	12.824	18.201	27.158	1.000	25.23
ATOM	1053	N	ASP	A	154	10.807	17.640	27.999	1.000	23.11
ATOM	1054	CA	ASP	A	154	11.355	16.378	28.515	1.000	21.66
ATOM	1055	CB	ASP	A	154	10.361	15.731	29.473	1.000	21.13
ATOM	1056	CG	ASP	A	154	10.962	14.589	30.267	1.000	28.12
ATOM	1057	OD1	ASP	A	154	11.961	14.786	30.981	1.000	33.22
ATOM	1058	OD2	ASP	A	154	10.428	13.470	30.165	1.000	29.23
ATOM	1059	C	ASP	A	154	11.654	15.413	27.380	1.000	25.41
ATOM	1060	O	ASP	A	154	10.996	15.507	26.341	1.000	20.63
ATOM	1061	N	HIS	A	155	12.599	14.484	27.555	1.000	22.40
ATOM	1062	CA	HIS	A	155	12.785	13.364	26.630	1.000	23.74
ATOM	1063	CB	HIS	A	155	14.212	12.842	26.726	1.000	20.26
ATOM	1064	CG	HIS	A	155	14.625	11.929	25.619	1.000	22.14
ATOM	1065	ND1	HIS	A	155	14.138	10.655	25.468	1.000	22.08
ATOM	1066	CE1	HIS	A	155	14.671	10.085	24.412	1.000	22.58
ATOM	1067	NE2	HIS	A	155	15.510	10.940	23.845	1.000	19.53
ATOM	1068	CD2	HIS	A	155	15.484	12.098	24.594	1.000	24.73
ATOM	1069	C	HIS	A	155	11.740	12.307	26.966	1.000	21.85
ATOM	1070	O	HIS	A	155	11.993	11.292	27.629	1.000	26.15
ATOM	1071	N	TYR	A	156	10.500	12.546	26.561	1.000	21.24
ATOM	1072	CA	TYR	A	156	9.346	11.821	27.075	1.000	18.68
ATOM	1073	CB	TYR	A	156	8.041	12.643	26.958	1.000	17.87
ATOM	1074	CG	TYR	A	156	7.765	13.067	25.525	1.000	18.81
ATOM	1075	CD1	TYR	A	156	7.032	12.280	24.647	1.000	23.10
ATOM	1076	CE1	TYR	A	156	6.778	12.662	23.333	1.000	19.51
ATOM	1077	CZ	TYR	A	156	7.267	13.880	22.886	1.000	17.53
ATOM	1078	OH	TYR	A	156	7.003	14.236	21.579	1.000	16.54
ATOM	1079	CE2	TYR	A	156	7.997	14.689	23.725	1.000	17.15
ATOM	1080	CD2	TYR	A	156	8.247	14.285	25.047	1.000	15.43
ATOM	1081	C	TYR	A	156	9.152	10.478	26.379	1.000	17.16
ATOM	1082	O	TYR	A	156	8.180	9.801	26.732	1.000	17.59
ATOM	1083	N	TRP	A	157	10.005	10.148	25.427	1.000	20.71
ATOM	1084	CA	TRP	A	157	9.956	8.852	24.736	1.000	21.44
ATOM	1085	CB	TRP	A	157	9.852	9.047	23.221	1.000	17.84
ATOM	1086	CG	TRP	A	157	11.092	9.674	22.655	1.000	22.69
ATOM	1087	CD1	TRP	A	157	12.153	9.009	22.094	1.000	24.11
ATOM	1088	NE1	TRP	A	157	13.100	9.922	21.690	1.000	23.85
ATOM	1089	CE2	TRP	A	157	12.655	11.191	21.991	1.000	20.42
ATOM	1090	CD2	TRP	A	157	11.390	11.072	22.597	1.000	18.79
ATOM	1091	CE3	TRP	A	157	10.724	12.233	22.996	1.000	18.30

**FIGURE 222**

ATOM	1092	CZ3	TRP	A	157	11.325	13.459	22.787	1.000	18.73
ATOM	1093	CH2	TRP	A	157	12.582	13.548	22.179	1.000	19.11
ATOM	1094	CZ2	TRP	A	157	13.254	12.423	21.783	1.000	16.74
ATOM	1095	C	TRP	A	157	11.180	8.027	25.116	1.000	21.33
ATOM	1096	O	TRP	A	157	12.146	8.606	25.626	1.000	22.55
ATOM	1097	N	PRO	A	158	11.211	6.722	24.940	1.000	25.25
ATOM	1098	CA	PRO	A	158	12.363	5.904	25.331	1.000	23.55
ATOM	1099	CB	PRO	A	158	11.959	4.495	24.848	1.000	23.59
ATOM	1100	CG	PRO	A	158	10.459	4.540	25.001	1.000	24.03
ATOM	1101	CD	PRO	A	158	10.115	5.887	24.391	1.000	24.42
ATOM	1102	C	PRO	A	158	13.675	6.254	24.671	1.000	22.71
ATOM	1103	O	PRO	A	158	13.804	6.665	23.522	1.000	24.60
ATOM	1104	N	ALA	A	159	14.735	6.052	25.470	1.000	25.38
ATOM	1105	CA	ALA	A	159	16.057	6.433	24.978	1.000	26.79
ATOM	1106	CB	ALA	A	159	16.933	6.787	26.175	1.000	30.60
ATOM	1107	C	ALA	A	159	16.686	5.340	24.141	1.000	31.84
ATOM	1108	O	ALA	A	159	17.702	5.599	23.481	1.000	37.52
ATOM	1109	N	ASP	A	160	16.119	4.135	24.142	1.000	24.95
ATOM	1110	CA	ASP	A	160	16.648	3.021	23.361	1.000	29.97
ATOM	1111	CB	ASP	A	160	17.725	2.249	24.119	1.000	33.98
ATOM	1112	CG	ASP	A	160	17.259	1.971	25.541	1.000	35.26
ATOM	1113	OD1	ASP	A	160	16.102	1.530	25.682	1.000	31.88
ATOM	1114	OD2	ASP	A	160	18.045	2.209	26.482	1.000	37.41
ATOM	1115	C	ASP	A	160	15.522	2.053	23.016	1.000	28.09
ATOM	1116	O	ASP	A	160	14.364	2.428	23.164	1.000	25.87
ATOM	1117	N	GLN	A	161	15.855	0.834	22.622	1.000	24.92
ATOM	1118	CA	GLN	A	161	14.765	-0.040	22.162	1.000	23.89
ATOM	1119	CB	GLN	A	161	15.223	-0.925	20.993	1.000	30.92
ATOM	1120	CG	GLN	A	161	15.788	-0.089	19.845	1.000	45.69
ATOM	1121	CD	GLN	A	161	15.671	-0.678	18.458	1.000	48.73
ATOM	1122	OE1	GLN	A	161	15.341	-1.845	18.249	1.000	48.46
ATOM	1123	NE2	GLN	A	161	15.952	0.136	17.441	1.000	68.57
ATOM	1124	C	GLN	A	161	14.187	-0.899	23.271	1.000	24.30
ATOM	1125	O	GLN	A	161	13.413	-1.806	22.956	1.000	25.26
ATOM	1126	N	ASP	A	162	14.518	-0.604	24.521	1.000	25.88
ATOM	1127	CA	ASP	A	162	13.974	-1.361	25.644	1.000	27.98
ATOM	1128	CB	ASP	A	162	14.876	-1.203	26.872	1.000	26.59
ATOM	1129	CG	ASP	A	162	16.207	-1.921	26.713	1.000	28.66
ATOM	1130	OD1	ASP	A	162	16.491	-2.448	25.628	1.000	31.96
ATOM	1131	OD2	ASP	A	162	16.968	-1.953	27.694	1.000	34.72
ATOM	1132	C	ASP	A	162	12.569	-0.891	25.982	1.000	26.99
ATOM	1133	O	ASP	A	162	12.382	0.304	26.182	1.000	27.57
ATOM	1134	N	SER	A	163	11.587	-1.785	26.071	1.000	22.21
ATOM	1135	CA	SER	A	163	10.208	-1.323	26.297	1.000	18.32
ATOM	1136	CB	SER	A	163	9.239	-2.491	26.111	1.000	19.11
ATOM	1137	OG	SER	A	163	9.616	-3.639	26.863	1.000	24.74
ATOM	1138	C	SER	A	163	10.065	-0.701	27.671	1.000	19.89
ATOM	1139	O	SER	A	163	10.822	-1.039	28.596	1.000	23.48
ATOM	1140	N	LEU	A	164	9.115	0.215	27.839	1.000	22.10
ATOM	1141	CA	LEU	A	164	8.902	0.835	29.142	1.000	25.88
ATOM	1142	CB	LEU	A	164	9.650	2.160	29.279	1.000	23.32
ATOM	1143	CG	LEU	A	164	11.081	2.263	29.771	1.000	32.69

FIGURE 223

ATOM	1144	CD1	LEU	A	164	11.536	3.726	29.711	1.000	28.59
ATOM	1145	CD2	LEU	A	164	11.280	1.731	31.183	1.000	31.11
ATOM	1146	C	LEU	A	164	7.421	1.126	29.396	1.000	27.10
ATOM	1147	O	LEU	A	164	6.712	1.554	28.476	1.000	18.26
ATOM	1148	N	TYR	A	165	6.948	0.930	30.633	1.000	16.81
ATOM	1149	CA	TYR	A	165	5.610	1.374	30.989	1.000	15.66
ATOM	1150	CB	TYR	A	165	5.152	0.803	32.324	1.000	17.16
ATOM	1151	CG	TYR	A	165	4.704	-0.642	32.238	1.000	22.22
ATOM	1152	CD1	TYR	A	165	3.479	-0.947	31.670	1.000	22.09
ATOM	1153	CE1	TYR	A	165	3.008	-2.244	31.568	1.000	21.78
ATOM	1154	CZ	TYR	A	165	3.812	-3.256	32.062	1.000	20.60
ATOM	1155	OH	TYR	A	165	3.338	-4.550	31.950	1.000	25.51
ATOM	1156	CE2	TYR	A	165	5.032	-2.978	32.631	1.000	18.30
ATOM	1157	CD2	TYR	A	165	5.506	-1.670	32.740	1.000	18.57
ATOM	1158	C	TYR	A	165	5.563	2.905	31.134	1.000	20.90
ATOM	1159	O	TYR	A	165	6.525	3.443	31.688	1.000	19.46
ATOM	1160	N	TYR	A	166	4.495	3.530	30.690	1.000	17.57
ATOM	1161	CA	TYR	A	166	4.172	4.933	30.964	1.000	16.74
ATOM	1162	CB	TYR	A	166	4.262	5.809	29.718	1.000	17.74
ATOM	1163	CG	TYR	A	166	5.648	6.083	29.202	1.000	18.55
ATOM	1164	CD1	TYR	A	166	6.318	7.284	29.472	1.000	15.85
ATOM	1165	CE1	TYR	A	166	7.589	7.509	28.990	1.000	15.83
ATOM	1166	CZ	TYR	A	166	8.236	6.569	28.235	1.000	17.11
ATOM	1167	OH	TYR	A	166	9.498	6.772	27.739	1.000	21.34
ATOM	1168	CE2	TYR	A	166	7.597	5.380	27.954	1.000	20.45
ATOM	1169	CD2	TYR	A	166	6.324	5.153	28.434	1.000	19.30
ATOM	1170	C	TYR	A	166	2.755	4.969	31.521	1.000	17.54
ATOM	1171	O	TYR	A	166	1.784	4.874	30.773	1.000	18.04
ATOM	1172	N	GLY	A	167	2.582	5.076	32.829	1.000	18.81
ATOM	1173	CA	GLY	A	167	1.205	4.954	33.330	1.000	22.60
ATOM	1174	C	GLY	A	167	0.691	3.555	33.040	1.000	22.40
ATOM	1175	O	GLY	A	167	1.404	2.570	33.233	1.000	24.80
ATOM	1176	N	ASP	A	168	-0.529	3.434	32.527	1.000	21.14
ATOM	1177	CA	ASP	A	168	-1.052	2.125	32.187	1.000	19.46
ATOM	1178	CB	ASP	A	168	-2.583	2.105	32.330	1.000	19.01
ATOM	1179	CG	ASP	A	168	-2.972	2.233	33.792	1.000	29.38
ATOM	1180	OD1	ASP	A	168	-2.199	1.795	34.675	1.000	31.79
ATOM	1181	OD2	ASP	A	168	-4.064	2.776	34.047	1.000	41.21
ATOM	1182	C	ASP	A	168	-0.707	1.690	30.779	1.000	22.83
ATOM	1183	O	ASP	A	168	-1.223	0.665	30.330	1.000	32.53
ATOM	1184	N	LEU	A	169	0.113	2.428	30.059	1.000	22.05
ATOM	1185	CA	LEU	A	169	0.439	2.054	28.685	1.000	20.08
ATOM	1186	CB	LEU	A	169	0.372	3.268	27.736	1.000	19.68
ATOM	1187	CG	LEU	A	169	-0.925	4.075	27.798	1.000	38.06
ATOM	1188	CD1	LEU	A	169	-0.792	5.463	27.170	1.000	25.80
ATOM	1189	CD2	LEU	A	169	-2.049	3.304	27.119	1.000	37.43
ATOM	1190	C	LEU	A	169	1.840	1.480	28.619	1.000	21.18
ATOM	1191	O	LEU	A	169	2.677	1.776	29.476	1.000	22.88
ATOM	1192	N	ILE	A	170	2.110	0.675	27.585	1.000	15.34
ATOM	1193	CA	ILE	A	170	3.498	0.257	27.438	1.000	16.78
ATOM	1194	CB	ILE	A	170	3.759	-1.248	27.605	1.000	23.77
ATOM	1195	CG1	ILE	A	170	5.235	-1.602	27.342	1.000	28.45

FIGURE 224

ATOM	1196	CD1	ILE	A	170	5.709	-2.782	28.165	1.000	28.18
ATOM	1197	CG2	ILE	A	170	2.849	-2.102	26.746	1.000	23.17
ATOM	1198	C	ILE	A	170	3.966	0.706	26.047	1.000	19.57
ATOM	1199	O	ILE	A	170	3.177	0.625	25.107	1.000	18.10
ATOM	1200	N	LEU	A	171	5.196	1.186	26.013	1.000	19.57
ATOM	1201	CA	LEU	A	171	5.709	1.829	24.789	1.000	23.46
ATOM	1202	CB	LEU	A	171	5.723	3.318	25.102	1.000	24.58
ATOM	1203	CG	LEU	A	171	6.059	4.395	24.098	1.000	38.61
ATOM	1204	CD1	LEU	A	171	4.995	4.543	23.027	1.000	29.72
ATOM	1205	CD2	LEU	A	171	6.247	5.726	24.826	1.000	32.91
ATOM	1206	C	LEU	A	171	7.042	1.210	24.442	1.000	25.87
ATOM	1207	O	LEU	A	171	7.863	0.848	25.294	1.000	22.43
ATOM	1208	N	GLN	A	172	7.320	1.018	23.159	1.000	18.94
ATOM	1209	CA	GLN	A	172	8.609	0.485	22.749	1.000	18.74
ATOM	1210	CB	GLN	A	172	8.516	-1.033	22.548	1.000	25.07
ATOM	1211	CG	GLN	A	172	9.801	-1.733	22.146	1.000	23.89
ATOM	1212	CD	GLN	A	172	9.639	-3.222	21.918	1.000	32.82
ATOM	1213	OE1	GLN	A	172	8.737	-3.720	21.242	1.000	36.92
ATOM	1214	NE2	GLN	A	172	10.552	-3.981	22.530	1.000	34.84
ATOM	1215	C	GLN	A	172	9.049	1.190	21.475	1.000	20.94
ATOM	1216	O	GLN	A	172	8.271	1.224	20.521	1.000	27.01
ATOM	1217	N	MET	A	173	10.265	1.709	21.448	1.000	21.76
ATOM	1218	CA	MET	A	173	10.771	2.361	20.246	1.000	19.32
ATOM	1219	CB	MET	A	173	11.848	3.393	20.622	1.000	20.29
ATOM	1220	CG	MET	A	173	12.395	4.082	19.350	1.000	23.01
ATOM	1221	SD	MET	A	173	13.333	5.573	19.752	1.000	23.47
ATOM	1222	CE	MET	A	173	14.788	4.835	20.498	1.000	34.32
ATOM	1223	C	MET	A	173	11.331	1.325	19.286	1.000	21.94
ATOM	1224	O	MET	A	173	12.211	0.554	19.678	1.000	25.02
ATOM	1225	N	LEU	A	174	10.824	1.300	18.058	1.000	21.94
ATOM	1226	CA	LEU	A	174	11.188	0.272	17.086	1.000	26.84
ATOM	1227	CB	LEU	A	174	9.993	-0.104	16.224	1.000	29.19
ATOM	1228	CG	LEU	A	174	8.732	-0.590	16.934	1.000	33.01
ATOM	1229	CD1	LEU	A	174	7.688	-0.964	15.897	1.000	29.01
ATOM	1230	CD2	LEU	A	174	9.062	-1.757	17.857	1.000	38.21
ATOM	1231	C	LEU	A	174	12.299	0.737	16.159	1.000	27.31
ATOM	1232	O	LEU	A	174	13.081	-0.049	15.641	1.000	28.22
ATOM	1233	N	SER	A	175	12.364	2.050	15.956	1.000	28.86
ATOM	1234	CA	SER	A	175	13.420	2.612	15.111	1.000	30.23
ATOM	1235	CB	SER	A	175	13.135	2.372	13.626	1.000	29.79
ATOM	1236	OG	SER	A	175	12.320	3.403	13.111	1.000	28.04
ATOM	1237	C	SER	A	175	13.595	4.101	15.397	1.000	22.48
ATOM	1238	O	SER	A	175	12.690	4.787	15.885	1.000	22.47
ATOM	1239	N	GLU	A	176	14.798	4.562	15.104	1.000	20.99
ATOM	1240	CA	GLU	A	176	15.204	5.939	15.322	1.000	21.52
ATOM	1241	CB	GLU	A	176	15.885	6.109	16.674	1.000	18.41
ATOM	1242	CG	GLU	A	176	16.366	7.514	16.976	1.000	22.49
ATOM	1243	CD	GLU	A	176	16.890	7.563	18.413	1.000	39.47
ATOM	1244	OE1	GLU	A	176	18.041	7.104	18.596	1.000	35.29
ATOM	1245	OE2	GLU	A	176	16.182	8.023	19.331	1.000	26.84
ATOM	1246	C	GLU	A	176	16.158	6.334	14.203	1.000	35.39
ATOM	1247	O	GLU	A	176	17.237	5.756	14.149	1.000	26.11

**FIGURE 225**

ATOM	1248	N	SER A 177	15.754	7.260	13.341	1.000	26.10
ATOM	1249	CA	SER A 177	16.562	7.596	12.175	1.000	22.13
ATOM	1250	CB	SER A 177	15.850	7.215	10.880	1.000	24.63
ATOM	1251	OG	SER A 177	15.442	5.858	10.852	1.000	32.57
ATOM	1252	C	SER A 177	16.888	9.079	12.211	1.000	19.74
ATOM	1253	O	SER A 177	16.041	9.955	12.003	1.000	24.72
ATOM	1254	N	VAL A 178	18.142	9.387	12.521	1.000	21.76
ATOM	1255	CA	VAL A 178	18.577	10.766	12.651	1.000	20.70
ATOM	1256	CB	VAL A 178	19.777	10.890	13.604	1.000	30.20
ATOM	1257	CG1	VAL A 178	20.138	12.353	13.823	1.000	22.39
ATOM	1258	CG2	VAL A 178	19.478	10.224	14.943	1.000	30.74
ATOM	1259	C	VAL A 178	18.959	11.311	11.280	1.000	27.01
ATOM	1260	O	VAL A 178	19.885	10.794	10.652	1.000	26.60
ATOM	1261	N	LEU A 179	18.244	12.333	10.828	1.000	23.24
ATOM	1262	CA	LEU A 179	18.550	12.947	9.541	1.000	17.95
ATOM	1263	CB	LEU A 179	17.292	12.950	8.668	1.000	19.90
ATOM	1264	CG	LEU A 179	16.414	11.712	8.694	1.000	19.48
ATOM	1265	CD1	LEU A 179	15.201	11.861	7.765	1.000	20.09
ATOM	1266	CD2	LEU A 179	17.209	10.467	8.304	1.000	23.69
ATOM	1267	C	LEU A 179	19.119	14.337	9.791	1.000	22.68
ATOM	1268	O	LEU A 179	19.079	14.824	10.939	1.000	23.34
ATOM	1269	N	PRO A 180	19.677	15.022	8.798	1.000	26.71
ATOM	1270	CA	PRO A 180	20.320	16.317	9.086	1.000	23.99
ATOM	1271	CB	PRO A 180	20.700	16.849	7.686	1.000	24.76
ATOM	1272	CG	PRO A 180	20.859	15.612	6.863	1.000	30.87
ATOM	1273	CD	PRO A 180	19.801	14.649	7.378	1.000	29.95
ATOM	1274	C	PRO A 180	19.439	17.339	9.771	1.000	23.60
ATOM	1275	O	PRO A 180	19.901	18.080	10.636	1.000	22.88
ATOM	1276	N	GLU A 181	18.151	17.441	9.439	1.000	21.19
ATOM	1277	CA	GLU A 181	17.363	18.480	10.078	1.000	21.28
ATOM	1278	CB	GLU A 181	16.858	19.455	8.991	1.000	24.45
ATOM	1279	CG	GLU A 181	18.003	20.315	8.476	1.000	34.87
ATOM	1280	CD	GLU A 181	17.596	21.325	7.421	1.000	37.86
ATOM	1281	OE1	GLU A 181	16.746	21.008	6.567	1.000	32.02
ATOM	1282	OE2	GLU A 181	18.154	22.440	7.452	1.000	44.17
ATOM	1283	C	GLU A 181	16.178	17.945	10.870	1.000	17.99
ATOM	1284	O	GLU A 181	15.507	18.740	11.537	1.000	19.13
ATOM	1285	N	TRP A 182	15.906	16.648	10.817	1.000	23.72
ATOM	1286	CA	TRP A 182	14.848	16.095	11.672	1.000	20.93
ATOM	1287	CB	TRP A 182	13.432	16.217	11.113	1.000	15.09
ATOM	1288	CG	TRP A 182	13.192	15.913	9.681	1.000	16.03
ATOM	1289	CD1	TRP A 182	12.852	14.727	9.123	1.000	20.35
ATOM	1290	NE1	TRP A 182	12.715	14.821	7.763	1.000	23.86
ATOM	1291	CE2	TRP A 182	12.971	16.112	7.407	1.000	15.42
ATOM	1292	CD2	TRP A 182	13.275	16.826	8.568	1.000	18.32
ATOM	1293	CE3	TRP A 182	13.583	18.197	8.484	1.000	18.38
ATOM	1294	CZ3	TRP A 182	13.571	18.785	7.229	1.000	19.84
ATOM	1295	CH2	TRP A 182	13.261	18.032	6.085	1.000	21.10
ATOM	1296	CZ2	TRP A 182	12.956	16.698	6.134	1.000	18.37
ATOM	1297	C	TRP A 182	15.188	14.629	11.929	1.000	21.61
ATOM	1298	O	TRP A 182	15.996	14.011	11.228	1.000	21.72
ATOM	1299	N	THR A 183	14.549	14.085	12.961	1.000	18.39

**FIGURE 226**

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ATOM	1300	CA	THR	A	183	14.699	12.677	13.292	1.000	20.50
ATOM	1301	CB	THR	A	183	15.328	12.553	14.701	1.000	23.44
ATOM	1302	OG1	THR	A	183	16.636	13.143	14.619	1.000	24.00
ATOM	1303	CG2	THR	A	183	15.453	11.104	15.137	1.000	21.54
ATOM	1304	C	THR	A	183	13.349	11.988	13.226	1.000	16.48
ATOM	1305	O	THR	A	183	12.354	12.543	13.710	1.000	18.87
ATOM	1306	N	ILE	A	184	13.301	10.809	12.641	1.000	15.19
ATOM	1307	CA	ILE	A	184	12.051	10.059	12.556	1.000	15.66
ATOM	1308	CB	ILE	A	184	11.775	9.676	11.096	1.000	19.83
ATOM	1309	CG1	ILE	A	184	11.821	10.921	10.196	1.000	20.74
ATOM	1310	CD1	ILE	A	184	11.379	10.717	8.765	1.000	23.01
ATOM	1311	CG2	ILE	A	184	10.481	8.900	10.978	1.000	19.48
ATOM	1312	C	ILE	A	184	12.134	8.828	13.450	1.000	25.32
ATOM	1313	O	ILE	A	184	13.056	8.018	13.311	1.000	28.73
ATOM	1314	N	ARG	A	185	11.189	8.678	14.370	1.000	21.95
ATOM	1315	CA	ARG	A	185	11.171	7.501	15.231	1.000	19.00
ATOM	1316	CB	ARG	A	185	11.381	7.882	16.693	1.000	17.64
ATOM	1317	CG	ARG	A	185	12.739	8.478	17.011	1.000	22.12
ATOM	1318	CD	ARG	A	185	12.764	9.060	18.407	1.000	22.23
ATOM	1319	NE	ARG	A	185	13.977	9.765	18.768	1.000	27.88
ATOM	1320	CZ	ARG	A	185	14.318	11.031	18.624	1.000	22.96
ATOM	1321	NH1	ARG	A	185	13.515	11.930	18.062	1.000	21.31
ATOM	1322	NH2	ARG	A	185	15.513	11.426	19.056	1.000	28.28
ATOM	1323	C	ARG	A	185	9.836	6.796	15.067	1.000	20.34
ATOM	1324	O	ARG	A	185	8.827	7.415	14.740	1.000	19.60
ATOM	1325	N	GLU	A	186	9.842	5.499	15.318	1.000	21.83
ATOM	1326	CA	GLU	A	186	8.590	4.756	15.330	1.000	19.84
ATOM	1327	CB	GLU	A	186	8.495	3.779	14.165	1.000	27.08
ATOM	1328	CG	GLU	A	186	7.086	3.286	13.877	1.000	38.65
ATOM	1329	CD	GLU	A	186	6.961	2.255	12.778	1.000	49.85
ATOM	1330	OE1	GLU	A	186	7.958	1.554	12.481	1.000	59.07
ATOM	1331	OE2	GLU	A	186	5.874	2.119	12.169	1.000	41.81
ATOM	1332	C	GLU	A	186	8.507	4.004	16.664	1.000	24.47
ATOM	1333	O	GLU	A	186	9.494	3.391	17.085	1.000	28.68
ATOM	1334	N	PHE	A	187	7.342	4.092	17.281	1.000	21.26
ATOM	1335	CA	PHE	A	187	7.016	3.401	18.513	1.000	17.58
ATOM	1336	CB	PHE	A	187	6.609	4.390	19.609	1.000	19.02
ATOM	1337	CG	PHE	A	187	7.601	5.542	19.741	1.000	26.16
ATOM	1338	CD1	PHE	A	187	7.288	6.798	19.268	1.000	22.44
ATOM	1339	CE1	PHE	A	187	8.192	7.832	19.409	1.000	30.77
ATOM	1340	CZ	PHE	A	187	9.428	7.634	19.993	1.000	26.12
ATOM	1341	CE2	PHE	A	187	9.746	6.376	20.477	1.000	27.12
ATOM	1342	CD2	PHE	A	187	8.832	5.341	20.350	1.000	25.25
ATOM	1343	C	PHE	A	187	5.836	2.453	18.339	1.000	20.12
ATOM	1344	O	PHE	A	187	4.844	2.733	17.687	1.000	23.02
ATOM	1345	N	LYS	A	188	5.969	1.320	19.015	1.000	29.00
ATOM	1346	CA	LYS	A	188	4.814	0.486	19.315	1.000	23.44
ATOM	1347	CB	LYS	A	188	5.229	-0.986	19.280	1.000	29.53
ATOM	1348	CG	LYS	A	188	4.064	-1.959	19.180	1.000	41.78
ATOM	1349	CD	LYS	A	188	4.560	-3.360	18.830	1.000	46.50
ATOM	1350	CE	LYS	A	188	5.255	-3.976	20.036	1.000	45.29
ATOM	1351	NZ	LYS	A	188	5.958	-5.246	19.707	1.000	51.18

**FIGURE 227**

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ATOM	1352	C	LYS	A	188	4.247	0.908	20.669	1.000	21.37
ATOM	1353	O	LYS	A	188	4.984	1.012	21.650	1.000	20.70
ATOM	1354	N	ILE	A	189	2.942	1.151	20.722	1.000	19.68
ATOM	1355	CA	ILE	A	189	2.280	1.419	21.990	1.000	20.68
ATOM	1356	CB	ILE	A	189	1.712	2.853	22.019	1.000	26.52
ATOM	1357	CG1	ILE	A	189	1.092	3.235	23.363	1.000	22.26
ATOM	1358	CD1	ILE	A	189	0.940	4.748	23.485	1.000	39.28
ATOM	1359	CG2	ILE	A	189	0.721	3.104	20.879	1.000	26.76
ATOM	1360	C	ILE	A	189	1.160	0.429	22.259	1.000	25.87
ATOM	1361	O	ILE	A	189	0.397	0.070	21.351	1.000	23.56
ATOM	1362	N	CYS	A	190	1.032	-0.021	23.514	1.000	24.27
ATOM	1363	CA	CYS	A	190	-0.078	-0.912	23.859	1.000	21.00
ATOM	1364	CB	CYS	A	190	0.402	-2.336	24.179	1.000	28.92
ATOM	1365	SG	CYS	A	190	1.318	-3.174	22.867	1.000	32.32
ATOM	1366	C	CYS	A	190	-0.838	-0.365	25.055	1.000	26.90
ATOM	1367	O	CYS	A	190	-0.279	-0.024	26.098	1.000	22.81
ATOM	1368	N	GLY	A	191	-2.159	-0.270	24.946	1.000	28.18
ATOM	1369	CA	GLY	A	191	-2.883	0.291	26.094	1.000	35.73
ATOM	1370	C	GLY	A	191	-4.150	-0.485	26.348	1.000	42.74
ATOM	1371	O	GLY	A	191	-4.326	-1.578	25.793	1.000	32.85
ATOM	1372	N	GLU	A	192	-5.093	-0.003	27.180	1.000	51.55
ATOM	1373	CA	GLU	A	192	-6.223	-0.938	27.283	1.000	66.18
ATOM	1374	CB	GLU	A	192	-7.133	-0.742	28.489	1.000	76.10
ATOM	1375	CG	GLU	A	192	-7.860	-2.067	28.785	1.000	85.72
ATOM	1376	CD	GLU	A	192	-7.026	-3.266	28.356	1.000	87.86
ATOM	1377	OE1	GLU	A	192	-6.184	-3.687	29.190	1.000	106.89
ATOM	1378	OE2	GLU	A	192	-7.174	-3.794	27.229	1.000	63.79
ATOM	1379	C	GLU	A	192	-7.019	-0.844	25.974	1.000	60.51
ATOM	1380	O	GLU	A	192	-7.455	0.251	25.638	1.000	49.89
ATOM	1381	N	GLU	A	193	-7.112	-1.996	25.326	1.000	57.69
ATOM	1382	CA	GLU	A	193	-7.600	-2.127	23.973	1.000	58.03
ATOM	1383	CB	GLU	A	193	-7.726	-3.604	23.546	1.000	59.99
ATOM	1384	CG	GLU	A	193	-8.209	-3.661	22.102	1.000	70.62
ATOM	1385	CD	GLU	A	193	-8.606	-5.058	21.671	1.000	69.93
ATOM	1386	OE1	GLU	A	193	-9.439	-5.674	22.369	1.000	80.76
ATOM	1387	OE2	GLU	A	193	-8.081	-5.511	20.636	1.000	63.90
ATOM	1388	C	GLU	A	193	-8.963	-1.475	23.781	1.000	64.42
ATOM	1389	O	GLU	A	193	-9.945	-1.868	24.403	1.000	100.70
ATOM	1390	N	GLN	A	194	-9.008	-0.492	22.895	1.000	65.44
ATOM	1391	CA	GLN	A	194	-10.257	0.128	22.460	1.000	65.33
ATOM	1392	CB	GLN	A	194	-10.256	1.622	22.773	1.000	59.27
ATOM	1393	CG	GLN	A	194	-8.915	2.066	23.359	1.000	64.93
ATOM	1394	CD	GLN	A	194	-8.739	3.571	23.383	1.000	63.48
ATOM	1395	OE1	GLN	A	194	-8.193	4.160	22.449	1.000	39.84
ATOM	1396	NE2	GLN	A	194	-9.206	4.183	24.467	1.000	72.21
ATOM	1397	C	GLN	A	194	-10.409	-0.139	20.964	1.000	65.87
ATOM	1398	O	GLN	A	194	-10.725	-1.270	20.581	1.000	56.74
ATOM	1399	N	LEU	A	195	-10.151	0.891	20.161	1.000	58.59
ATOM	1400	CA	LEU	A	195	-10.167	0.734	18.707	1.000	53.57
ATOM	1401	CB	LEU	A	195	-10.095	2.103	18.027	1.000	34.01
ATOM	1402	CG	LEU	A	195	-11.473	2.711	17.749	1.000	52.84
ATOM	1403	CD1	LEU	A	195	-11.369	4.144	17.248	1.000	64.31

**FIGURE 228**



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ATOM	1404	CD2	LEU	A	195	-12.213	1.828	16.745	1.000	77.61
ATOM	1405	C	LEU	A	195	-9.029	-0.175	18.251	1.000	62.19
ATOM	1406	O	LEU	A	195	-9.207	-0.990	17.345	1.000	74.97
ATOM	1407	N	ASP	A	196	-7.874	-0.040	18.893	1.000	64.63
ATOM	1408	CA	ASP	A	196	-6.730	-0.907	18.651	1.000	71.88
ATOM	1409	CB	ASP	A	196	-5.616	-0.149	17.929	1.000	69.22
ATOM	1410	CG	ASP	A	196	-5.589	1.331	18.254	1.000	68.85
ATOM	1411	OD1	ASP	A	196	-5.984	1.716	19.374	1.000	46.56
ATOM	1412	OD2	ASP	A	196	-5.168	2.105	17.363	1.000	68.77
ATOM	1413	C	ASP	A	196	-6.197	-1.496	19.959	1.000	75.55
ATOM	1414	O	ASP	A	196	-6.396	-0.908	21.026	1.000	52.97
ATOM	1415	N	ALA	A	197	-5.530	-2.643	19.864	1.000	77.66
ATOM	1416	CA	ALA	A	197	-4.895	-3.267	21.020	1.000	76.86
ATOM	1417	CB	ALA	A	197	-5.256	-4.738	21.113	1.000	89.29
ATOM	1418	C	ALA	A	197	-3.376	-3.077	20.976	1.000	70.52
ATOM	1419	O	ALA	A	197	-2.709	-3.074	22.013	1.000	40.24
ATOM	1420	N	HIS	A	198	-2.852	-2.910	19.772	1.000	66.05
ATOM	1421	CA	HIS	A	198	-1.497	-2.444	19.510	1.000	70.91
ATOM	1422	CB	HIS	A	198	-0.565	-3.597	19.162	1.000	75.50
ATOM	1423	CG	HIS	A	198	-1.090	-4.481	18.069	1.000	88.48
ATOM	1424	ND1	HIS	A	198	-1.492	-5.779	18.290	1.000	94.26
ATOM	1425	CE1	HIS	A	198	-1.906	-6.315	17.155	1.000	93.97
ATOM	1426	NE2	HIS	A	198	-1.788	-5.411	16.199	1.000	94.98
ATOM	1427	CD2	HIS	A	198	-1.280	-4.259	16.747	1.000	92.03
ATOM	1428	C	HIS	A	198	-1.534	-1.404	18.383	1.000	71.60
ATOM	1429	O	HIS	A	198	-2.374	-1.488	17.480	1.000	79.54
ATOM	1430	N	ARG	A	199	-0.649	-0.416	18.408	1.000	59.29
ATOM	1431	CA	ARG	A	199	-0.625	0.649	17.409	1.000	35.48
ATOM	1432	CB	ARG	A	199	-1.445	1.854	17.881	1.000	27.18
ATOM	1433	CG	ARG	A	199	-1.499	2.997	16.876	1.000	28.09
ATOM	1434	CD	ARG	A	199	-2.136	4.248	17.473	1.000	30.52
ATOM	1435	NE	ARG	A	199	-3.326	3.985	18.281	1.000	24.15
ATOM	1436	CZ	ARG	A	199	-3.802	4.809	19.209	1.000	28.77
ATOM	1437	NH1	ARG	A	199	-3.159	5.961	19.433	1.000	21.27
ATOM	1438	NH2	ARG	A	199	-4.894	4.481	19.891	1.000	20.72
ATOM	1439	C	ARG	A	199	0.811	1.091	17.148	1.000	34.48
ATOM	1440	O	ARG	A	199	1.652	1.004	18.041	1.000	33.43
ATOM	1441	N	LEU	A	200	1.073	1.574	15.945	1.000	25.06
ATOM	1442	CA	LEU	A	200	2.347	2.162	15.564	1.000	24.44
ATOM	1443	CB	LEU	A	200	2.763	1.609	14.186	1.000	33.41
ATOM	1444	CG	LEU	A	200	2.956	0.076	14.187	1.000	38.30
ATOM	1445	CD1	LEU	A	200	3.183	-0.457	12.783	1.000	34.53
ATOM	1446	CD2	LEU	A	200	4.085	-0.324	15.136	1.000	24.70
ATOM	1447	C	LEU	A	200	2.247	3.680	15.530	1.000	27.60
ATOM	1448	O	LEU	A	200	1.329	4.254	14.940	1.000	27.27
ATOM	1449	N	ILE	A	201	3.190	4.352	16.167	1.000	21.65
ATOM	1450	CA	ILE	A	201	3.223	5.805	16.195	1.000	19.45
ATOM	1451	CB	ILE	A	201	3.243	6.350	17.634	1.000	23.93
ATOM	1452	CG1	ILE	A	201	2.224	5.707	18.555	1.000	27.08
ATOM	1453	CD1	ILE	A	201	0.840	6.267	18.547	1.000	32.15
ATOM	1454	CG2	ILE	A	201	3.105	7.874	17.627	1.000	22.88
ATOM	1455	C	ILE	A	201	4.494	6.275	15.498	1.000	16.73

**FIGURE 229**

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ATOM	1456	O	ILE	A	201	5.543	5.697	15.797	1.000	21.43
ATOM	1457	N	ARG	A	202	4.395	7.244	14.609	1.000	15.34
ATOM	1458	CA	ARG	A	202	5.529	7.874	13.952	1.000	13.92
ATOM	1459	CB	ARG	A	202	5.344	8.052	12.442	1.000	21.70
ATOM	1460	CG	ARG	A	202	4.824	6.798	11.747	1.000	37.52
ATOM	1461	CD	ARG	A	202	5.397	6.648	10.346	1.000	48.86
ATOM	1462	NE	ARG	A	202	6.613	5.885	10.269	1.000	46.03
ATOM	1463	CZ	ARG	A	202	7.751	6.058	9.632	1.000	45.70
ATOM	1464	NH1	ARG	A	202	8.037	7.082	8.834	1.000	37.98
ATOM	1465	NH2	ARG	A	202	8.673	5.112	9.812	1.000	32.36
ATOM	1466	C	ARG	A	202	5.730	9.248	14.587	1.000	16.51
ATOM	1467	O	ARG	A	202	4.762	9.959	14.863	1.000	18.08
ATOM	1468	N	HIS	A	203	6.987	9.543	14.854	1.000	17.20
ATOM	1469	CA	HIS	A	203	7.433	10.725	15.560	1.000	16.92
ATOM	1470	CB	HIS	A	203	8.142	10.336	16.854	1.000	20.76
ATOM	1471	CG	HIS	A	203	8.421	11.450	17.803	1.000	16.82
ATOM	1472	ND1	HIS	A	203	9.626	12.125	17.837	1.000	21.78
ATOM	1473	CE1	HIS	A	203	9.592	13.064	18.762	1.000	18.85
ATOM	1474	NE2	HIS	A	203	8.404	13.021	19.331	1.000	19.59
ATOM	1475	CD2	HIS	A	203	7.654	12.037	18.755	1.000	16.71
ATOM	1476	C	HIS	A	203	8.357	11.516	14.629	1.000	15.29
ATOM	1477	O	HIS	A	203	9.374	10.977	14.206	1.000	20.50
ATOM	1478	N	PHE	A	204	7.949	12.737	14.315	1.000	19.40
ATOM	1479	CA	PHE	A	204	8.668	13.627	13.398	1.000	22.59
ATOM	1480	CB	PHE	A	204	7.750	14.112	12.280	1.000	16.25
ATOM	1481	CG	PHE	A	204	7.133	12.949	11.535	1.000	19.17
ATOM	1482	CD1	PHE	A	204	5.859	12.519	11.888	1.000	20.80
ATOM	1483	CE1	PHE	A	204	5.296	11.466	11.195	1.000	18.80
ATOM	1484	CZ	PHE	A	204	5.976	10.843	10.173	1.000	24.56
ATOM	1485	CE2	PHE	A	204	7.246	11.266	9.820	1.000	23.53
ATOM	1486	CD2	PHE	A	204	7.825	12.307	10.529	1.000	21.57
ATOM	1487	C	PHE	A	204	9.237	14.789	14.191	1.000	15.29
ATOM	1488	O	PHE	A	204	8.545	15.706	14.632	1.000	18.02
ATOM	1489	N	HIS	A	205	10.552	14.693	14.407	1.000	17.57
ATOM	1490	CA	HIS	A	205	11.231	15.586	15.336	1.000	20.77
ATOM	1491	CB	HIS	A	205	12.017	14.705	16.297	1.000	22.15
ATOM	1492	CG	HIS	A	205	12.733	15.407	17.404	1.000	23.38
ATOM	1493	ND1	HIS	A	205	12.618	16.749	17.686	1.000	28.56
ATOM	1494	CE1	HIS	A	205	13.372	17.053	18.726	1.000	22.17
ATOM	1495	NE2	HIS	A	205	13.982	15.963	19.129	1.000	23.37
ATOM	1496	CD2	HIS	A	205	13.598	14.913	18.326	1.000	19.72
ATOM	1497	C	HIS	A	205	12.140	16.556	14.583	1.000	20.64
ATOM	1498	O	HIS	A	205	13.207	16.157	14.120	1.000	20.31
ATOM	1499	N	TYR	A	206	11.736	17.808	14.448	1.000	20.99
ATOM	1500	CA	TYR	A	206	12.552	18.816	13.771	1.000	18.48
ATOM	1501	CB	TYR	A	206	11.683	19.944	13.305	1.000	21.09
ATOM	1502	CG	TYR	A	206	12.270	20.944	12.340	1.000	17.56
ATOM	1503	CD1	TYR	A	206	12.517	20.592	11.011	1.000	16.37
ATOM	1504	CE1	TYR	A	206	13.048	21.568	10.167	1.000	22.62
ATOM	1505	CZ	TYR	A	206	13.294	22.833	10.665	1.000	23.75
ATOM	1506	OH	TYR	A	206	13.820	23.786	9.833	1.000	24.85
ATOM	1507	CE2	TYR	A	206	13.044	23.195	11.972	1.000	25.09

**FIGURE 230**

ATOM	1508	CD2	TYR	A	206	12.518	22.219	12.812	1.000	22.77
ATOM	1509	C	TYR	A	206	13.580	19.341	14.783	1.000	16.12
ATOM	1510	O	TYR	A	206	13.165	19.799	15.824	1.000	21.03
ATOM	1511	N	THR	A	207	14.855	19.255	14.458	1.000	20.95
ATOM	1512	CA	THR	A	207	15.937	19.446	15.406	1.000	25.39
ATOM	1513	CB	THR	A	207	16.825	18.181	15.436	1.000	21.21
ATOM	1514	OG1	THR	A	207	17.300	17.892	14.110	1.000	24.55
ATOM	1515	CG2	THR	A	207	16.034	16.975	15.913	1.000	20.79
ATOM	1516	C	THR	A	207	16.791	20.668	15.090	1.000	29.49
ATOM	1517	O	THR	A	207	17.837	20.877	15.720	1.000	27.61
ATOM	1518	N	VAL	A	208	16.366	21.501	14.140	1.000	24.45
ATOM	1519	CA	VAL	A	208	17.216	22.662	13.859	1.000	21.06
ATOM	1520	CB	VAL	A	208	17.883	22.496	12.481	1.000	28.39
ATOM	1521	CG1	VAL	A	208	18.791	21.272	12.532	1.000	23.56
ATOM	1522	CG2	VAL	A	208	16.849	22.387	11.368	1.000	20.57
ATOM	1523	C	VAL	A	208	16.523	23.999	13.935	1.000	31.86
ATOM	1524	O	VAL	A	208	17.084	24.981	13.417	1.000	27.99
ATOM	1525	N	TRP	A	209	15.359	24.144	14.567	1.000	26.72
ATOM	1526	CA	TRP	A	209	14.797	25.499	14.665	1.000	30.27
ATOM	1527	CB	TRP	A	209	13.424	25.461	15.322	1.000	28.47
ATOM	1528	CG	TRP	A	209	12.553	26.652	15.078	1.000	31.11
ATOM	1529	CD1	TRP	A	209	12.747	27.933	15.523	1.000	31.15
ATOM	1530	NE1	TRP	A	209	11.725	28.752	15.093	1.000	28.46
ATOM	1531	CE2	TRP	A	209	10.845	28.000	14.356	1.000	28.45
ATOM	1532	CD2	TRP	A	209	11.331	26.678	14.325	1.000	27.55
ATOM	1533	CE3	TRP	A	209	10.611	25.704	13.629	1.000	22.81
ATOM	1534	CZ3	TRP	A	209	9.445	26.095	13.005	1.000	25.86
ATOM	1535	CH2	TRP	A	209	8.973	27.410	13.044	1.000	21.32
ATOM	1536	CZ2	TRP	A	209	9.666	28.388	13.720	1.000	25.69
ATOM	1537	C	TRP	A	209	15.756	26.384	15.452	1.000	27.61
ATOM	1538	O	TRP	A	209	16.199	25.947	16.515	1.000	25.68
ATOM	1539	N	PRO	A	210	16.119	27.575	15.000	1.000	24.36
ATOM	1540	CA	PRO	A	210	17.083	28.369	15.787	1.000	26.72
ATOM	1541	CB	PRO	A	210	17.398	29.537	14.854	1.000	23.52
ATOM	1542	CG	PRO	A	210	16.330	29.568	13.828	1.000	30.83
ATOM	1543	CD	PRO	A	210	15.721	28.197	13.735	1.000	24.56
ATOM	1544	C	PRO	A	210	16.551	28.877	17.112	1.000	29.12
ATOM	1545	O	PRO	A	210	15.359	29.056	17.335	1.000	26.48
ATOM	1546	N	ASP	A	211	17.443	29.158	18.079	1.000	39.44
ATOM	1547	CA	ASP	A	211	17.006	29.720	19.366	1.000	34.21
ATOM	1548	CB	ASP	A	211	18.098	29.809	20.429	1.000	42.94
ATOM	1549	CG	ASP	A	211	19.528	29.592	20.007	1.000	62.84
ATOM	1550	OD1	ASP	A	211	20.028	30.231	19.044	1.000	74.38
ATOM	1551	OD2	ASP	A	211	20.212	28.773	20.663	1.000	76.33
ATOM	1552	C	ASP	A	211	16.433	31.124	19.187	1.000	35.17
ATOM	1553	O	ASP	A	211	15.656	31.640	19.987	1.000	38.20
ATOM	1554	N	HIS	A	212	16.818	31.816	18.113	1.000	39.51
ATOM	1555	CA	HIS	A	212	16.184	33.125	17.909	1.000	42.28
ATOM	1556	CB	HIS	A	212	17.197	34.250	18.143	1.000	51.96
ATOM	1557	CG	HIS	A	212	17.690	34.249	19.563	1.000	70.14
ATOM	1558	ND1	HIS	A	212	18.969	33.878	19.916	1.000	72.27
ATOM	1559	CE1	HIS	A	212	19.109	33.968	21.227	1.000	71.31

**FIGURE 231**

ATOM	1560	NE2	HIS	A	212	17.962	34.385	21.735	1.000	73.22
ATOM	1561	CD2	HIS	A	212	17.056	34.563	20.718	1.000	71.91
ATOM	1562	C	HIS	A	212	15.568	33.188	16.521	1.000	35.23
ATOM	1563	O	HIS	A	212	16.155	32.711	15.551	1.000	36.51
ATOM	1564	N	GLY	A	213	14.380	33.777	16.425	1.000	39.89
ATOM	1565	CA	GLY	A	213	13.712	33.934	15.149	1.000	35.59
ATOM	1566	C	GLY	A	213	13.306	32.607	14.530	1.000	40.76
ATOM	1567	O	GLY	A	213	13.230	31.604	15.240	1.000	29.83
ATOM	1568	N	VAL	A	214	13.073	32.661	13.224	1.000	26.99
ATOM	1569	CA	VAL	A	214	12.556	31.542	12.457	1.000	23.88
ATOM	1570	CB	VAL	A	214	11.489	32.069	11.477	1.000	27.24
ATOM	1571	CG1	VAL	A	214	10.282	32.612	12.225	1.000	25.46
ATOM	1572	CG2	VAL	A	214	12.081	33.158	10.585	1.000	32.07
ATOM	1573	C	VAL	A	214	13.672	30.841	11.701	1.000	33.49
ATOM	1574	O	VAL	A	214	14.782	31.393	11.653	1.000	41.50
ATOM	1575	N	PRO	A	215	13.433	29.666	11.132	1.000	33.79
ATOM	1576	CA	PRO	A	215	14.416	29.011	10.262	1.000	32.45
ATOM	1577	CB	PRO	A	215	13.625	27.863	9.628	1.000	27.07
ATOM	1578	CG	PRO	A	215	12.646	27.518	10.693	1.000	25.47
ATOM	1579	CD	PRO	A	215	12.228	28.835	11.297	1.000	29.25
ATOM	1580	C	PRO	A	215	14.948	29.950	9.185	1.000	39.16
ATOM	1581	O	PRO	A	215	14.249	30.839	8.704	1.000	42.31
ATOM	1582	N	GLU	A	216	16.215	29.755	8.813	1.000	33.87
ATOM	1583	CA	GLU	A	216	16.877	30.778	8.004	1.000	44.43
ATOM	1584	CB	GLU	A	216	18.392	30.715	8.244	1.000	52.43
ATOM	1585	CG	GLU	A	216	18.841	31.700	9.324	1.000	56.31
ATOM	1586	CD	GLU	A	216	20.119	32.423	8.940	1.000	68.80
ATOM	1587	OE1	GLU	A	216	20.015	33.454	8.242	1.000	80.56
ATOM	1588	OE2	GLU	A	216	21.208	31.946	9.333	1.000	68.46
ATOM	1589	C	GLU	A	216	16.531	30.688	6.522	1.000	40.23
ATOM	1590	O	GLU	A	216	16.633	31.700	5.823	1.000	37.48
ATOM	1591	N	THR	A	217	16.112	29.522	6.063	1.000	29.61
ATOM	1592	CA	THR	A	217	15.492	29.314	4.778	1.000	32.71
ATOM	1593	CB	THR	A	217	16.185	28.187	3.991	1.000	30.46
ATOM	1594	OG1	THR	A	217	16.030	26.987	4.770	1.000	35.61
ATOM	1595	CG2	THR	A	217	17.669	28.469	3.835	1.000	34.53
ATOM	1596	C	THR	A	217	14.031	28.881	4.915	1.000	36.27
ATOM	1597	O	THR	A	217	13.686	28.153	5.839	1.000	30.65
ATOM	1598	N	THR	A	218	13.176	29.290	3.990	1.000	31.97
ATOM	1599	CA	THR	A	218	11.842	28.692	3.901	1.000	22.66
ATOM	1600	CB	THR	A	218	10.987	29.433	2.861	1.000	20.62
ATOM	1601	OG1	THR	A	218	11.671	29.423	1.600	1.000	24.39
ATOM	1602	CG2	THR	A	218	10.804	30.879	3.294	1.000	23.42
ATOM	1603	C	THR	A	218	11.951	27.225	3.518	1.000	28.74
ATOM	1604	O	THR	A	218	11.142	26.377	3.905	1.000	32.65
ATOM	1605	N	GLN	A	219	12.969	26.889	2.721	1.000	25.74
ATOM	1606	CA	GLN	A	219	13.056	25.550	2.173	1.000	20.41
ATOM	1607	CB	GLN	A	219	14.365	25.386	1.388	1.000	28.06
ATOM	1608	CG	GLN	A	219	14.167	24.541	0.137	1.000	47.72
ATOM	1609	CD	GLN	A	219	14.872	23.201	0.253	1.000	57.11
ATOM	1610	OE1	GLN	A	219	14.297	22.182	-0.133	1.000	42.74
ATOM	1611	NE2	GLN	A	219	16.096	23.246	0.779	1.000	56.71

**FIGURE 232**

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Three Dimensional Coordinates of HPTPbeta

ATOM	1612	C	GLN	A	219	13.010	24.421	3.211	1.000	22.65
ATOM	1613	O	GLN	A	219	12.351	23.416	3.001	1.000	26.69
ATOM	1614	N	SER	A	220	13.741	24.594	4.294	1.000	26.94
ATOM	1615	CA	SER	A	220	13.846	23.658	5.400	1.000	30.86
ATOM	1616	CB	SER	A	220	14.660	24.279	6.537	1.000	29.59
ATOM	1617	OG	SER	A	220	14.662	23.505	7.717	1.000	28.43
ATOM	1618	C	SER	A	220	12.463	23.280	5.946	1.000	20.04
ATOM	1619	O	SER	A	220	12.135	22.096	5.958	1.000	27.37
ATOM	1620	N	LEU	A	221	11.711	24.297	6.378	1.000	21.52
ATOM	1621	CA	LEU	A	221	10.414	23.978	6.996	1.000	19.60
ATOM	1622	CB	LEU	A	221	9.875	25.107	7.874	1.000	18.57
ATOM	1623	CG	LEU	A	221	8.762	24.639	8.827	1.000	20.88
ATOM	1624	CD1	LEU	A	221	9.333	23.645	9.830	1.000	24.60
ATOM	1625	CD2	LEU	A	221	8.061	25.779	9.537	1.000	16.09
ATOM	1626	C	LEU	A	221	9.436	23.546	5.914	1.000	21.46
ATOM	1627	O	LEU	A	221	8.613	22.659	6.182	1.000	22.12
ATOM	1628	N	ILE	A	222	9.507	24.112	4.703	1.000	21.43
ATOM	1629	CA	ILE	A	222	8.594	23.627	3.661	1.000	19.51
ATOM	1630	CB	ILE	A	222	8.782	24.425	2.352	1.000	17.06
ATOM	1631	CG1	ILE	A	222	8.267	25.866	2.483	1.000	22.29
ATOM	1632	CD1	ILE	A	222	8.545	26.686	1.227	1.000	25.18
ATOM	1633	CG2	ILE	A	222	8.150	23.690	1.193	1.000	22.06
ATOM	1634	C	ILE	A	222	8.788	22.150	3.399	1.000	23.90
ATOM	1635	O	ILE	A	222	7.832	21.361	3.253	1.000	19.79
ATOM	1636	N	GLN	A	223	10.049	21.706	3.348	1.000	23.36
ATOM	1637	CA	GLN	A	223	10.361	20.297	3.096	1.000	22.31
ATOM	1638	CB	GLN	A	223	11.867	20.094	2.866	1.000	27.99
ATOM	1639	CG	GLN	A	223	12.297	18.683	2.510	1.000	27.69
ATOM	1640	CD	GLN	A	223	11.727	18.170	1.203	1.000	36.04
ATOM	1641	OE1	GLN	A	223	11.311	18.929	0.325	1.000	38.77
ATOM	1642	NE2	GLN	A	223	11.677	16.854	1.025	1.000	34.81
ATOM	1643	C	GLN	A	223	9.921	19.383	4.245	1.000	22.46
ATOM	1644	O	GLN	A	223	9.447	18.263	3.994	1.000	19.87
ATOM	1645	N	PHE	A	224	10.087	19.878	5.470	1.000	20.95
ATOM	1646	CA	PHE	A	224	9.694	19.074	6.635	1.000	20.11
ATOM	1647	CB	PHE	A	224	10.163	19.747	7.918	1.000	18.59
ATOM	1648	CG	PHE	A	224	9.767	19.057	9.228	1.000	14.91
ATOM	1649	CD1	PHE	A	224	10.211	17.795	9.547	1.000	18.83
ATOM	1650	CE1	PHE	A	224	9.852	17.187	10.760	1.000	16.08
ATOM	1651	CZ	PHE	A	224	9.030	17.866	11.638	1.000	14.76
ATOM	1652	CE2	PHE	A	224	8.568	19.140	11.351	1.000	18.06
ATOM	1653	CD2	PHE	A	224	8.947	19.716	10.141	1.000	19.42
ATOM	1654	C	PHE	A	224	8.172	18.890	6.630	1.000	16.39
ATOM	1655	O	PHE	A	224	7.689	17.764	6.787	1.000	18.08
ATOM	1656	N	VAL	A	225	7.464	20.012	6.459	1.000	20.25
ATOM	1657	CA	VAL	A	225	5.992	19.996	6.408	1.000	17.55
ATOM	1658	CB	VAL	A	225	5.419	21.411	6.253	1.000	21.00
ATOM	1659	CG1	VAL	A	225	3.947	21.344	5.850	1.000	16.31
ATOM	1660	CG2	VAL	A	225	5.626	22.177	7.560	1.000	13.40
ATOM	1661	C	VAL	A	225	5.512	19.084	5.298	1.000	17.64
ATOM	1662	O	VAL	A	225	4.671	18.200	5.484	1.000	18.82
ATOM	1663	N	ARG	A	226	6.062	19.192	4.088	1.000	19.58

**FIGURE 233**

ATOM	1664	CA	ARG	A	226	5.619	18.308	3.009	1.000	20.05
ATOM	1665	CB	ARG	A	226	6.285	18.775	1.705	1.000	20.92
ATOM	1666	CG	ARG	A	226	5.686	20.090	1.204	1.000	21.90
ATOM	1667	CD	ARG	A	226	6.324	20.446	-0.145	1.000	22.66
ATOM	1668	NE	ARG	A	226	5.564	21.504	-0.798	1.000	24.99
ATOM	1669	CZ	ARG	A	226	6.095	22.322	-1.697	1.000	40.94
ATOM	1670	NH1	ARG	A	226	7.381	22.153	-1.994	1.000	28.79
ATOM	1671	NH2	ARG	A	226	5.371	23.272	-2.281	1.000	30.57
ATOM	1672	C	ARG	A	226	5.923	16.848	3.263	1.000	17.75
ATOM	1673	O	ARG	A	226	5.172	15.933	2.955	1.000	19.58
ATOM	1674	N	THR	A	227	7.055	16.531	3.881	1.000	19.90
ATOM	1675	CA	THR	A	227	7.391	15.168	4.247	1.000	15.51
ATOM	1676	CB	THR	A	227	8.835	15.143	4.821	1.000	21.32
ATOM	1677	OG1	THR	A	227	9.764	15.609	3.823	1.000	22.05
ATOM	1678	CG2	THR	A	227	9.217	13.723	5.189	1.000	20.98
ATOM	1679	C	THR	A	227	6.413	14.588	5.271	1.000	15.49
ATOM	1680	O	THR	A	227	5.919	13.477	5.141	1.000	19.20
ATOM	1681	N	VAL	A	228	6.109	15.318	6.325	1.000	16.11
ATOM	1682	CA	VAL	A	228	5.143	14.927	7.341	1.000	18.46
ATOM	1683	CB	VAL	A	228	5.031	15.957	8.477	1.000	17.87
ATOM	1684	CG1	VAL	A	228	3.887	15.568	9.414	1.000	18.37
ATOM	1685	CG2	VAL	A	228	6.318	16.108	9.270	1.000	27.25
ATOM	1686	C	VAL	A	228	3.751	14.744	6.713	1.000	17.43
ATOM	1687	O	VAL	A	228	3.112	13.723	6.983	1.000	17.33
ATOM	1688	N	ARG	A	229	3.338	15.721	5.898	1.000	18.35
ATOM	1689	CA	ARG	A	229	2.003	15.683	5.292	1.000	20.21
ATOM	1690	CB	ARG	A	229	1.710	16.982	4.560	1.000	20.48
ATOM	1691	CG	ARG	A	229	0.475	16.989	3.670	1.000	22.85
ATOM	1692	CD	ARG	A	229	-0.750	16.409	4.384	1.000	19.41
ATOM	1693	NE	ARG	A	229	-1.031	17.165	5.615	1.000	19.35
ATOM	1694	CZ	ARG	A	229	-2.026	16.831	6.444	1.000	19.18
ATOM	1695	NH1	ARG	A	229	-2.773	15.784	6.097	1.000	19.75
ATOM	1696	NH2	ARG	A	229	-2.266	17.508	7.550	1.000	14.67
ATOM	1697	C	ARG	A	229	1.917	14.434	4.421	1.000	25.70
ATOM	1698	O	ARG	A	229	0.933	13.683	4.482	1.000	28.00
ATOM	1699	N	ASP	A	230	2.949	14.152	3.627	1.000	23.44
ATOM	1700	CA	ASP	A	230	3.008	12.884	2.886	1.000	26.19
ATOM	1701	CB	ASP	A	230	4.322	12.757	2.098	1.000	25.54
ATOM	1702	CG	ASP	A	230	4.325	13.611	0.845	1.000	39.61
ATOM	1703	OD1	ASP	A	230	3.251	14.111	0.450	1.000	29.77
ATOM	1704	OD2	ASP	A	230	5.398	13.806	0.233	1.000	42.44
ATOM	1705	C	ASP	A	230	2.880	11.659	3.771	1.000	30.77
ATOM	1706	O	ASP	A	230	2.146	10.713	3.455	1.000	27.25
ATOM	1707	N	TYR	A	231	3.596	11.597	4.906	1.000	26.11
ATOM	1708	CA	TYR	A	231	3.418	10.399	5.737	1.000	21.69
ATOM	1709	CB	TYR	A	231	4.351	10.385	6.946	1.000	30.21
ATOM	1710	CG	TYR	A	231	5.747	9.892	6.649	1.000	33.51
ATOM	1711	CD1	TYR	A	231	5.992	8.543	6.409	1.000	34.93
ATOM	1712	CE1	TYR	A	231	7.275	8.109	6.131	1.000	37.60
ATOM	1713	CZ	TYR	A	231	8.331	8.999	6.092	1.000	28.01
ATOM	1714	OH	TYR	A	231	9.604	8.546	5.820	1.000	29.93
ATOM	1715	CE2	TYR	A	231	8.100	10.334	6.323	1.000	19.51

FIGURE 234

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ATOM	1716	CD2	TYR	A	231	6.819	10.771	6.592	1.000	19.51
ATOM	1717	C	TYR	A	231	1.994	10.314	6.274	1.000	26.15
ATOM	1718	O	TYR	A	231	1.372	9.255	6.320	1.000	30.72
ATOM	1719	N	ILE	A	232	1.503	11.467	6.729	1.000	22.90
ATOM	1720	CA	ILE	A	232	0.167	11.452	7.319	1.000	24.42
ATOM	1721	CB	ILE	A	232	-0.271	12.843	7.788	1.000	28.90
ATOM	1722	CG1	ILE	A	232	0.566	13.416	8.935	1.000	17.25
ATOM	1723	CD1	ILE	A	232	0.205	14.859	9.204	1.000	22.29
ATOM	1724	CG2	ILE	A	232	-1.764	12.825	8.134	1.000	28.46
ATOM	1725	C	ILE	A	232	-0.881	10.941	6.329	1.000	26.86
ATOM	1726	O	ILE	A	232	-1.758	10.140	6.669	1.000	32.19
ATOM	1727	N	ASN	A	233	-0.764	11.429	5.106	1.000	25.93
ATOM	1728	CA	ASN	A	233	-1.751	11.166	4.070	1.000	30.21
ATOM	1729	CB	ASN	A	233	-1.549	12.124	2.900	1.000	24.13
ATOM	1730	CG	ASN	A	233	-2.266	13.446	3.088	1.000	31.27
ATOM	1731	OD1	ASN	A	233	-2.889	13.743	4.112	1.000	29.17
ATOM	1732	ND2	ASN	A	233	-2.134	14.239	2.035	1.000	30.92
ATOM	1733	C	ASN	A	233	-1.671	9.730	3.568	1.000	41.91
ATOM	1734	O	ASN	A	233	-2.603	9.199	2.958	1.000	41.91
ATOM	1735	N	ARG	A	234	-0.536	9.078	3.791	1.000	45.86
ATOM	1736	CA	ARG	A	234	-0.326	7.804	3.086	1.000	50.95
ATOM	1737	CB	ARG	A	234	1.109	7.725	2.547	1.000	40.12
ATOM	1738	CG	ARG	A	234	1.343	8.844	1.545	1.000	46.93
ATOM	1739	CD	ARG	A	234	2.117	8.452	0.310	1.000	57.95
ATOM	1740	NE	ARG	A	234	2.532	9.653	-0.429	1.000	68.35
ATOM	1741	CZ	ARG	A	234	3.780	10.094	-0.506	1.000	67.12
ATOM	1742	NH1	ARG	A	234	4.774	9.450	0.100	1.000	63.01
ATOM	1743	NH2	ARG	A	234	4.041	11.192	-1.199	1.000	61.94
ATOM	1744	C	ARG	A	234	-0.696	6.676	4.029	1.000	60.20
ATOM	1745	O	ARG	A	234	-0.601	5.491	3.730	1.000	87.41
ATOM	1746	N	SER	A	235	-1.146	7.142	5.194	1.000	44.81
ATOM	1747	CA	SER	A	235	-1.664	6.224	6.191	1.000	50.50
ATOM	1748	CB	SER	A	235	-1.332	6.720	7.596	1.000	40.08
ATOM	1749	OG	SER	A	235	-2.550	7.165	8.201	1.000	64.20
ATOM	1750	C	SER	A	235	-3.184	6.066	6.042	1.000	58.76
ATOM	1751	O	SER	A	235	-3.835	6.996	5.553	1.000	38.45
ATOM	1752	N	PRO	A	236	-3.665	4.905	6.477	1.000	62.13
ATOM	1753	CA	PRO	A	236	-5.059	4.491	6.327	1.000	58.65
ATOM	1754	CB	PRO	A	236	-5.065	3.010	6.716	1.000	53.85
ATOM	1755	CG	PRO	A	236	-3.634	2.599	6.792	1.000	49.45
ATOM	1756	CD	PRO	A	236	-2.898	3.851	7.185	1.000	58.01
ATOM	1757	C	PRO	A	236	-5.975	5.258	7.275	1.000	58.23
ATOM	1758	O	PRO	A	236	-7.033	5.742	6.887	1.000	62.93
ATOM	1759	N	GLY	A	237	-5.535	5.351	8.526	1.000	50.71
ATOM	1760	CA	GLY	A	237	-6.297	6.108	9.514	1.000	46.90
ATOM	1761	C	GLY	A	237	-5.292	6.580	10.552	1.000	55.40
ATOM	1762	O	GLY	A	237	-4.274	5.894	10.681	1.000	60.29
ATOM	1763	N	ALA	A	238	-5.566	7.689	11.229	1.000	61.94
ATOM	1764	CA	ALA	A	238	-4.552	8.203	12.150	1.000	56.95
ATOM	1765	CB	ALA	A	238	-3.434	8.854	11.328	1.000	52.44
ATOM	1766	C	ALA	A	238	-5.070	9.174	13.195	1.000	50.99
ATOM	1767	O	ALA	A	238	-4.242	9.571	14.033	1.000	57.56

**FIGURE 235**

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ATOM	1768	N	GLY	A	239	-6.349	9.552	13.199	1.000	34.51
ATOM	1769	CA	GLY	A	239	-6.845	10.375	14.310	1.000	33.83
ATOM	1770	C	GLY	A	239	-6.120	11.715	14.312	1.000	20.85
ATOM	1771	O	GLY	A	239	-5.394	11.963	13.335	1.000	30.52
ATOM	1772	N	PRO	A	240	-6.258	12.599	15.276	1.000	28.46
ATOM	1773	CA	PRO	A	240	-5.589	13.905	15.105	1.000	23.74
ATOM	1774	CB	PRO	A	240	-6.004	14.716	16.315	1.000	31.69
ATOM	1775	CG	PRO	A	240	-7.078	13.958	16.996	1.000	36.41
ATOM	1776	CD	PRO	A	240	-6.964	12.527	16.559	1.000	28.90
ATOM	1777	C	PRO	A	240	-4.072	13.702	15.099	1.000	25.52
ATOM	1778	O	PRO	A	240	-3.538	12.739	15.647	1.000	25.98
ATOM	1779	N	THR	A	241	-3.404	14.642	14.458	1.000	19.16
ATOM	1780	CA	THR	A	241	-1.954	14.695	14.504	1.000	17.79
ATOM	1781	CB	THR	A	241	-1.388	15.324	13.206	1.000	16.44
ATOM	1782	OG1	THR	A	241	-1.782	14.534	12.091	1.000	18.37
ATOM	1783	CG2	THR	A	241	0.130	15.352	13.322	1.000	18.85
ATOM	1784	C	THR	A	241	-1.547	15.547	15.690	1.000	16.03
ATOM	1785	O	THR	A	241	-2.027	16.671	15.783	1.000	14.26
ATOM	1786	N	VAL	A	242	-0.710	15.081	16.604	1.000	14.89
ATOM	1787	CA	VAL	A	242	-0.276	15.964	17.707	1.000	12.20
ATOM	1788	CB	VAL	A	242	0.120	15.076	18.909	1.000	15.21
ATOM	1789	CG1	VAL	A	242	0.983	15.784	19.937	1.000	15.58
ATOM	1790	CG2	VAL	A	242	-1.132	14.525	19.592	1.000	15.20
ATOM	1791	C	VAL	A	242	0.896	16.806	17.253	1.000	15.62
ATOM	1792	O	VAL	A	242	1.838	16.295	16.614	1.000	16.25
ATOM	1793	N	VAL	A	243	0.877	18.091	17.577	1.000	13.63
ATOM	1794	CA	VAL	A	243	1.995	18.961	17.231	1.000	14.54
ATOM	1795	CB	VAL	A	243	1.707	19.938	16.086	1.000	18.21
ATOM	1796	CG1	VAL	A	243	2.970	20.692	15.648	1.000	15.88
ATOM	1797	CG2	VAL	A	243	1.120	19.216	14.869	1.000	17.94
ATOM	1798	C	VAL	A	243	2.377	19.709	18.502	1.000	14.26
ATOM	1799	O	VAL	A	243	1.559	20.250	19.248	1.000	16.04
ATOM	1800	N	HIS	A	244	3.686	19.752	18.781	1.000	17.37
ATOM	1801	CA	HIS	A	244	4.097	20.519	19.951	1.000	14.10
ATOM	1802	CB	HIS	A	244	4.022	19.648	21.202	1.000	15.84
ATOM	1803	CG	HIS	A	244	5.142	18.657	21.367	1.000	17.02
ATOM	1804	ND1	HIS	A	244	6.351	19.001	21.955	1.000	21.61
ATOM	1805	CE1	HIS	A	244	7.130	17.936	21.988	1.000	17.38
ATOM	1806	NE2	HIS	A	244	6.471	16.897	21.474	1.000	16.96
ATOM	1807	CD2	HIS	A	244	5.226	17.346	21.099	1.000	12.72
ATOM	1808	C	HIS	A	244	5.511	21.073	19.792	1.000	15.92
ATOM	1809	O	HIS	A	244	6.302	20.556	18.999	1.000	15.50
ATOM	1810	N	CYS	A	245	5.762	22.123	20.572	1.000	19.65
ATOM	1811	CA	CYS	A	245	7.129	22.659	20.697	1.000	23.91
ATOM	1812	CB	CYS	A	245	7.258	24.015	19.998	1.000	21.22
ATOM	1813	SG	CYS	A	245	5.939	25.207	20.299	1.000	27.54
ATOM	1814	C	CYS	A	245	7.436	22.703	22.181	1.000	25.09
ATOM	1815	O	CYS	A	245	7.226	21.699	22.894	1.000	22.16
ATOM	1816	N	SER	A	246	7.888	23.809	22.751	1.000	19.84
ATOM	1817	CA	SER	A	246	7.969	23.838	24.223	1.000	16.95
ATOM	1818	CB	SER	A	246	9.152	24.728	24.635	1.000	22.80
ATOM	1819	OG	SER	A	246	9.277	24.846	26.034	1.000	23.37

**FIGURE 236**



ATOM	1820	C	SER A 246	6.660	24.303	24.834	1.000	18.58
ATOM	1821	O	SER A 246	6.097	23.705	25.756	1.000	23.44
ATOM	1822	N	ALA A 247	6.105	25.428	24.344	1.000	21.38
ATOM	1823	CA	ALA A 247	4.834	25.878	24.909	1.000	26.84
ATOM	1824	CB	ALA A 247	4.815	27.397	25.044	1.000	30.94
ATOM	1825	C	ALA A 247	3.627	25.429	24.082	1.000	18.61
ATOM	1826	O	ALA A 247	2.500	25.492	24.563	1.000	23.09
ATOM	1827	N	GLY A 248	3.876	24.984	22.867	1.000	20.85
ATOM	1828	CA	GLY A 248	2.846	24.579	21.933	1.000	24.45
ATOM	1829	C	GLY A 248	2.113	25.731	21.278	1.000	30.38
ATOM	1830	O	GLY A 248	0.928	25.550	20.948	1.000	32.96
ATOM	1831	N	VAL A 249	2.794	26.852	21.091	1.000	21.75
ATOM	1832	CA	VAL A 249	2.214	28.061	20.510	1.000	26.90
ATOM	1833	CB	VAL A 249	2.293	29.257	21.504	1.000	35.49
ATOM	1834	CG1	VAL A 249	1.266	29.099	22.616	1.000	56.26
ATOM	1835	CG2	VAL A 249	3.654	29.410	22.145	1.000	24.47
ATOM	1836	C	VAL A 249	2.839	28.525	19.210	1.000	22.79
ATOM	1837	O	VAL A 249	2.200	28.508	18.151	1.000	26.47
ATOM	1838	N	GLY A 250	4.064	29.056	19.197	1.000	24.61
ATOM	1839	CA	GLY A 250	4.490	29.816	18.032	1.000	16.91
ATOM	1840	C	GLY A 250	4.953	28.914	16.917	1.000	21.72
ATOM	1841	O	GLY A 250	4.438	28.910	15.787	1.000	20.15
ATOM	1842	N	ARG A 251	5.967	28.114	17.253	1.000	19.78
ATOM	1843	CA	ARG A 251	6.512	27.182	16.284	1.000	21.28
ATOM	1844	CB	ARG A 251	7.717	26.381	16.767	1.000	26.04
ATOM	1845	CG	ARG A 251	8.878	27.181	17.346	1.000	34.41
ATOM	1846	CD	ARG A 251	10.132	26.322	17.479	1.000	26.22
ATOM	1847	NE	ARG A 251	11.199	27.043	18.161	1.000	30.53
ATOM	1848	CZ	ARG A 251	12.191	26.523	18.874	1.000	32.54
ATOM	1849	NH1	ARG A 251	12.297	25.212	19.033	1.000	22.98
ATOM	1850	NH2	ARG A 251	13.080	27.349	19.428	1.000	27.69
ATOM	1851	C	ARG A 251	5.417	26.194	15.829	1.000	22.23
ATOM	1852	O	ARG A 251	5.358	25.859	14.651	1.000	15.33
ATOM	1853	N	THR A 252	4.631	25.769	16.810	1.000	19.69
ATOM	1854	CA	THR A 252	3.579	24.773	16.547	1.000	20.16
ATOM	1855	CB	THR A 252	2.960	24.322	17.888	1.000	22.57
ATOM	1856	OG1	THR A 252	3.926	23.485	18.569	1.000	20.75
ATOM	1857	CG2	THR A 252	1.709	23.474	17.699	1.000	17.40
ATOM	1858	C	THR A 252	2.554	25.401	15.618	1.000	18.08
ATOM	1859	O	THR A 252	2.136	24.800	14.632	1.000	19.10
ATOM	1860	N	GLY A 253	2.134	26.639	15.924	1.000	17.29
ATOM	1861	CA	GLY A 253	1.142	27.297	15.074	1.000	14.74
ATOM	1862	C	GLY A 253	1.662	27.585	13.675	1.000	23.43
ATOM	1863	O	GLY A 253	0.946	27.483	12.672	1.000	14.99
ATOM	1864	N	THR A 254	2.940	27.949	13.575	1.000	18.08
ATOM	1865	CA	THR A 254	3.601	28.145	12.289	1.000	17.61
ATOM	1866	CB	THR A 254	5.014	28.741	12.533	1.000	16.64
ATOM	1867	OG1	THR A 254	4.873	29.982	13.251	1.000	20.15
ATOM	1868	CG2	THR A 254	5.694	29.043	11.221	1.000	17.02
ATOM	1869	C	THR A 254	3.643	26.845	11.511	1.000	16.81
ATOM	1870	O	THR A 254	3.355	26.769	10.313	1.000	17.03
ATOM	1871	N	PHE A 255	3.981	25.701	12.162	1.000	17.85

**FIGURE 237**

ATOM	1872	CA	PHE	A	255	3.963	24.414	11.477	1.000	13.47
ATOM	1873	CB	PHE	A	255	4.343	23.241	12.408	1.000	13.89
ATOM	1874	CG	PHE	A	255	4.219	21.881	11.732	1.000	14.73
ATOM	1875	CD1	PHE	A	255	5.240	21.372	10.954	1.000	12.62
ATOM	1876	CE1	PHE	A	255	5.203	20.153	10.292	1.000	16.48
ATOM	1877	CZ	PHE	A	255	4.042	19.390	10.390	1.000	17.68
ATOM	1878	CE2	PHE	A	255	3.012	19.881	11.182	1.000	13.26
ATOM	1879	CD2	PHE	A	255	3.081	21.074	11.855	1.000	16.37
ATOM	1880	C	PHE	A	255	2.554	24.154	10.899	1.000	10.19
ATOM	1881	O	PHE	A	255	2.385	23.771	9.748	1.000	15.90
ATOM	1882	N	ILE	A	256	1.557	24.332	11.785	1.000	12.97
ATOM	1883	CA	ILE	A	256	0.188	23.972	11.333	1.000	13.95
ATOM	1884	CB	ILE	A	256	-0.779	23.954	12.523	1.000	13.52
ATOM	1885	CG1	ILE	A	256	-0.475	22.759	13.451	1.000	15.18
ATOM	1886	CD1	ILE	A	256	-1.294	22.825	14.733	1.000	19.48
ATOM	1887	CG2	ILE	A	256	-2.238	23.941	12.124	1.000	19.86
ATOM	1888	C	ILE	A	256	-0.290	24.885	10.223	1.000	12.32
ATOM	1889	O	ILE	A	256	-0.822	24.432	9.205	1.000	16.82
ATOM	1890	N	ALA	A	257	-0.075	26.179	10.375	1.000	13.56
ATOM	1891	CA	ALA	A	257	-0.526	27.108	9.330	1.000	13.60
ATOM	1892	CB	ALA	A	257	-0.232	28.522	9.818	1.000	18.20
ATOM	1893	C	ALA	A	257	0.148	26.789	8.011	1.000	17.01
ATOM	1894	O	ALA	A	257	-0.446	26.751	6.923	1.000	16.67
ATOM	1895	N	LEU	A	258	1.461	26.519	8.059	1.000	17.25
ATOM	1896	CA	LEU	A	258	2.147	26.158	6.822	1.000	17.53
ATOM	1897	CB	LEU	A	258	3.654	26.013	7.044	1.000	17.08
ATOM	1898	CG	LEU	A	258	4.507	25.868	5.780	1.000	20.80
ATOM	1899	CD1	LEU	A	258	4.222	27.003	4.793	1.000	15.05
ATOM	1900	CD2	LEU	A	258	5.992	25.859	6.121	1.000	18.82
ATOM	1901	C	LEU	A	258	1.622	24.850	6.248	1.000	18.92
ATOM	1902	O	LEU	A	258	1.448	24.706	5.036	1.000	18.97
ATOM	1903	N	ASP	A	259	1.363	23.837	7.090	1.000	16.07
ATOM	1904	CA	ASP	A	259	0.754	22.618	6.578	1.000	10.97
ATOM	1905	CB	ASP	A	259	0.551	21.650	7.742	1.000	13.81
ATOM	1906	CG	ASP	A	259	-0.025	20.310	7.371	1.000	17.58
ATOM	1907	OD1	ASP	A	259	0.282	19.727	6.307	1.000	16.06
ATOM	1908	OD2	ASP	A	259	-0.800	19.817	8.233	1.000	19.09
ATOM	1909	C	ASP	A	259	-0.574	22.893	5.858	1.000	13.42
ATOM	1910	O	ASP	A	259	-0.784	22.386	4.764	1.000	18.06
ATOM	1911	N	ARG	A	260	-1.456	23.673	6.457	1.000	15.30
ATOM	1912	CA	ARG	A	260	-2.741	24.034	5.845	1.000	17.67
ATOM	1913	CB	ARG	A	260	-3.567	24.849	6.842	1.000	14.27
ATOM	1914	CG	ARG	A	260	-3.970	24.009	8.067	1.000	12.81
ATOM	1915	CD	ARG	A	260	-4.923	24.884	8.885	1.000	20.83
ATOM	1916	NE	ARG	A	260	-6.158	25.124	8.125	1.000	27.40
ATOM	1917	CZ	ARG	A	260	-7.185	25.786	8.663	1.000	40.82
ATOM	1918	NH1	ARG	A	260	-7.082	26.236	9.907	1.000	36.06
ATOM	1919	NH2	ARG	A	260	-8.288	25.988	7.962	1.000	39.48
ATOM	1920	C	ARG	A	260	-2.523	24.808	4.549	1.000	19.93
ATOM	1921	O	ARG	A	260	-3.148	24.535	3.519	1.000	17.22
ATOM	1922	N	ILE	A	261	-1.618	25.791	4.553	1.000	16.11
ATOM	1923	CA	ILE	A	261	-1.516	26.628	3.338	1.000	17.32

**FIGURE 238**

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ATOM	1924	CB	ILE	A	261	-0.841	27.994	3.615	1.000	21.93
ATOM	1925	CG1	ILE	A	261	0.658	27.969	3.875	1.000	27.34
ATOM	1926	CD1	ILE	A	261	1.186	29.227	4.546	1.000	33.86
ATOM	1927	CG2	ILE	A	261	-1.581	28.703	4.758	1.000	18.92
ATOM	1928	C	ILE	A	261	-0.851	25.876	2.216	1.000	20.48
ATOM	1929	O	ILE	A	261	-1.226	26.009	1.034	1.000	22.32
ATOM	1930	N	LEU	A	262	0.143	25.028	2.509	1.000	16.93
ATOM	1931	CA	LEU	A	262	0.737	24.302	1.387	1.000	17.22
ATOM	1932	CB	LEU	A	262	1.975	23.501	1.820	1.000	16.74
ATOM	1933	CG	LEU	A	262	3.194	24.340	2.240	1.000	20.68
ATOM	1934	CD1	LEU	A	262	4.319	23.422	2.693	1.000	18.57
ATOM	1935	CD2	LEU	A	262	3.634	25.246	1.085	1.000	18.30
ATOM	1936	C	LEU	A	262	-0.280	23.362	0.776	1.000	19.77
ATOM	1937	O	LEU	A	262	-0.261	23.155	-0.436	1.000	20.56
ATOM	1938	N	GLN	A	263	-1.139	22.759	1.613	1.000	19.67
ATOM	1939	CA	GLN	A	263	-2.241	21.952	1.056	1.000	19.49
ATOM	1940	CB	GLN	A	263	-3.050	21.287	2.170	1.000	17.39
ATOM	1941	CG	GLN	A	263	-2.289	20.167	2.891	1.000	15.52
ATOM	1942	CD	GLN	A	263	-3.138	19.572	4.012	1.000	20.67
ATOM	1943	OE1	GLN	A	263	-3.928	18.638	3.850	1.000	20.81
ATOM	1944	NE2	GLN	A	263	-2.956	20.185	5.176	1.000	17.87
ATOM	1945	C	GLN	A	263	-3.138	22.833	0.183	1.000	13.70
ATOM	1946	O	GLN	A	263	-3.554	22.415	-0.904	1.000	24.55
ATOM	1947	N	GLN	A	264	-3.444	24.043	0.641	1.000	15.00
ATOM	1948	CA	GLN	A	264	-4.260	24.907	-0.217	1.000	22.95
ATOM	1949	CB	GLN	A	264	-4.553	26.223	0.485	1.000	26.53
ATOM	1950	CG	GLN	A	264	-5.586	26.136	1.595	1.000	29.68
ATOM	1951	CD	GLN	A	264	-5.638	27.472	2.328	1.000	32.15
ATOM	1952	OE1	GLN	A	264	-5.197	28.482	1.781	1.000	29.91
ATOM	1953	NE2	GLN	A	264	-6.154	27.458	3.550	1.000	38.37
ATOM	1954	C	GLN	A	264	-3.583	25.159	-1.559	1.000	21.95
ATOM	1955	O	GLN	A	264	-4.225	25.050	-2.610	1.000	24.60
ATOM	1956	N	LEU	A	265	-2.293	25.490	-1.552	1.000	16.75
ATOM	1957	CA	LEU	A	265	-1.536	25.721	-2.771	1.000	19.81
ATOM	1958	CB	LEU	A	265	-0.067	26.053	-2.420	1.000	23.63
ATOM	1959	CG	LEU	A	265	0.195	27.420	-1.807	1.000	29.98
ATOM	1960	CD1	LEU	A	265	1.682	27.725	-1.734	1.000	26.97
ATOM	1961	CD2	LEU	A	265	-0.519	28.505	-2.613	1.000	33.62
ATOM	1962	C	LEU	A	265	-1.541	24.553	-3.735	1.000	19.01
ATOM	1963	O	LEU	A	265	-1.324	24.723	-4.947	1.000	22.58
ATOM	1964	N	ASP	A	266	-1.767	23.324	-3.273	1.000	19.07
ATOM	1965	CA	ASP	A	266	-1.801	22.167	-4.139	1.000	16.52
ATOM	1966	CB	ASP	A	266	-1.173	20.917	-3.509	1.000	22.85
ATOM	1967	CG	ASP	A	266	0.336	21.022	-3.334	1.000	25.04
ATOM	1968	OD1	ASP	A	266	0.957	21.963	-3.836	1.000	21.32
ATOM	1969	OD2	ASP	A	266	0.899	20.138	-2.658	1.000	26.79
ATOM	1970	C	ASP	A	266	-3.227	21.776	-4.570	1.000	17.40
ATOM	1971	O	ASP	A	266	-3.354	20.825	-5.337	1.000	24.62
ATOM	1972	N	SER	A	267	-4.231	22.487	-4.092	1.000	22.55
ATOM	1973	CA	SER	A	267	-5.619	22.129	-4.359	1.000	24.11
ATOM	1974	CB	SER	A	267	-6.289	21.776	-3.019	1.000	23.25
ATOM	1975	OG	SER	A	267	-6.418	20.374	-2.892	1.000	34.75

**FIGURE 239**

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ATOM	1976	C	SER A 267	-6.419	23.235	-5.033	1.000	19.22
ATOM	1977	O	SER A 267	-7.300	22.941	-5.859	1.000	20.89
ATOM	1978	N	LYS A 268	-6.137	24.463	-4.684	1.000	21.22
ATOM	1979	CA	LYS A 268	-6.907	25.624	-5.091	1.000	30.13
ATOM	1980	CB	LYS A 268	-7.595	26.250	-3.869	1.000	24.53
ATOM	1981	CG	LYS A 268	-8.563	25.304	-3.175	1.000	30.56
ATOM	1982	CD	LYS A 268	-8.969	25.910	-1.838	1.000	28.63
ATOM	1983	CE	LYS A 268	-10.158	26.834	-1.992	1.000	29.96
ATOM	1984	NZ	LYS A 268	-10.686	27.208	-0.641	1.000	30.06
ATOM	1985	C	LYS A 268	-6.095	26.737	-5.735	1.000	30.67
ATOM	1986	O	LYS A 268	-4.872	26.833	-5.660	1.000	23.21
ATOM	1987	N	ASP A 269	-6.834	27.650	-6.387	1.000	26.00
ATOM	1988	CA	ASP A 269	-6.096	28.750	-7.019	1.000	24.51
ATOM	1989	CB	ASP A 269	-6.616	28.978	-8.444	1.000	36.81
ATOM	1990	CG	ASP A 269	-8.072	29.337	-8.608	1.000	32.33
ATOM	1991	OD1	ASP A 269	-8.854	29.152	-7.660	1.000	26.79
ATOM	1992	OD2	ASP A 269	-8.465	29.822	-9.701	1.000	28.81
ATOM	1993	C	ASP A 269	-6.126	30.000	-6.165	1.000	21.36
ATOM	1994	O	ASP A 269	-5.857	31.124	-6.623	1.000	25.20
ATOM	1995	N	SER A 270	-6.434	29.846	-4.867	1.000	19.08
ATOM	1996	CA	SER A 270	-6.204	30.978	-3.973	1.000	22.27
ATOM	1997	CB	SER A 270	-7.455	31.809	-3.722	1.000	31.53
ATOM	1998	OG	SER A 270	-8.466	31.045	-3.109	1.000	46.83
ATOM	1999	C	SER A 270	-5.632	30.493	-2.626	1.000	17.38
ATOM	2000	O	SER A 270	-5.828	29.315	-2.334	1.000	22.28
ATOM	2001	N	VAL A 271	-5.000	31.394	-1.910	1.000	20.10
ATOM	2002	CA	VAL A 271	-4.413	31.067	-0.596	1.000	21.99
ATOM	2003	CB	VAL A 271	-2.876	31.020	-0.706	1.000	36.16
ATOM	2004	CG1	VAL A 271	-2.305	32.413	-0.921	1.000	35.70
ATOM	2005	CG2	VAL A 271	-2.233	30.370	0.514	1.000	31.05
ATOM	2006	C	VAL A 271	-4.845	32.054	0.464	1.000	23.10
ATOM	2007	O	VAL A 271	-5.012	33.251	0.241	1.000	21.67
ATOM	2008	N	ASP A 272	-5.046	31.547	1.689	1.000	22.69
ATOM	2009	CA	ASP A 272	-5.591	32.427	2.728	1.000	29.48
ATOM	2010	CB	ASP A 272	-7.070	32.095	2.910	1.000	26.70
ATOM	2011	CG	ASP A 272	-7.813	32.991	3.869	1.000	27.37
ATOM	2012	OD1	ASP A 272	-7.274	34.038	4.288	1.000	23.01
ATOM	2013	OD2	ASP A 272	-8.973	32.599	4.175	1.000	25.43
ATOM	2014	C	ASP A 272	-4.807	32.259	4.021	1.000	22.94
ATOM	2015	O	ASP A 272	-5.200	31.536	4.930	1.000	19.80
ATOM	2016	N	ILE A 273	-3.661	32.934	4.069	1.000	24.25
ATOM	2017	CA	ILE A 273	-2.806	32.829	5.255	1.000	22.39
ATOM	2018	CB	ILE A 273	-1.436	33.465	4.962	1.000	25.49
ATOM	2019	CG1	ILE A 273	-0.747	32.812	3.755	1.000	18.59
ATOM	2020	CD1	ILE A 273	0.498	33.584	3.329	1.000	24.40
ATOM	2021	CG2	ILE A 273	-0.532	33.454	6.177	1.000	18.07
ATOM	2022	C	ILE A 273	-3.472	33.457	6.452	1.000	20.71
ATOM	2023	O	ILE A 273	-3.470	32.853	7.530	1.000	17.55
ATOM	2024	N	TYR A 274	-4.038	34.646	6.266	1.000	21.57
ATOM	2025	CA	TYR A 274	-4.765	35.332	7.338	1.000	27.63
ATOM	2026	CB	TYR A 274	-5.414	36.646	6.864	1.000	23.61
ATOM	2027	CG	TYR A 274	-6.110	37.456	7.937	1.000	24.88

**FIGURE 240**

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ATOM	2028	CD1	TYR	A	274	-7.427	37.236	8.347	1.000	25.22
ATOM	2029	CE1	TYR	A	274	-8.040	37.979	9.328	1.000	24.84
ATOM	2030	CZ	TYR	A	274	-7.346	39.009	9.937	1.000	24.82
ATOM	2031	OH	TYR	A	274	-7.979	39.740	10.919	1.000	31.02
ATOM	2032	CE2	TYR	A	274	-6.040	39.266	9.571	1.000	24.34
ATOM	2033	CD2	TYR	A	274	-5.435	38.503	8.582	1.000	21.36
ATOM	2034	C	TYR	A	274	-5.834	34.413	7.922	1.000	22.02
ATOM	2035	O	TYR	A	274	-5.962	34.308	9.150	1.000	23.59
ATOM	2036	N	GLY	A	275	-6.642	33.818	7.042	1.000	19.06
ATOM	2037	CA	GLY	A	275	-7.741	32.997	7.563	1.000	18.44
ATOM	2038	C	GLY	A	275	-7.221	31.755	8.284	1.000	18.35
ATOM	2039	O	GLY	A	275	-7.789	31.310	9.278	1.000	20.87
ATOM	2040	N	ALA	A	276	-6.123	31.168	7.823	1.000	19.89
ATOM	2041	CA	ALA	A	276	-5.591	30.008	8.560	1.000	22.21
ATOM	2042	CB	ALA	A	276	-4.480	29.371	7.758	1.000	17.74
ATOM	2043	C	ALA	A	276	-5.091	30.429	9.932	1.000	24.08
ATOM	2044	O	ALA	A	276	-5.321	29.770	10.938	1.000	19.77
ATOM	2045	N	VAL	A	277	-4.390	31.569	10.019	1.000	18.02
ATOM	2046	CA	VAL	A	277	-3.912	31.978	11.353	1.000	17.46
ATOM	2047	CB	VAL	A	277	-2.831	33.079	11.246	1.000	21.08
ATOM	2048	CG1	VAL	A	277	-2.405	33.553	12.631	1.000	21.06
ATOM	2049	CG2	VAL	A	277	-1.645	32.548	10.467	1.000	16.97
ATOM	2050	C	VAL	A	277	-5.084	32.426	12.205	1.000	20.56
ATOM	2051	O	VAL	A	277	-5.142	32.112	13.390	1.000	18.55
ATOM	2052	N	HIS	A	278	-6.044	33.156	11.644	1.000	18.91
ATOM	2053	CA	HIS	A	278	-7.281	33.470	12.314	1.000	16.67
ATOM	2054	CB	HIS	A	278	-8.297	34.063	11.303	1.000	18.69
ATOM	2055	CG	HIS	A	278	-9.520	34.540	12.036	1.000	22.21
ATOM	2056	ND1	HIS	A	278	-10.626	33.756	12.252	1.000	21.90
ATOM	2057	CE1	HIS	A	278	-11.535	34.445	12.925	1.000	23.09
ATOM	2058	NE2	HIS	A	278	-11.055	35.656	13.150	1.000	23.99
ATOM	2059	CD2	HIS	A	278	-9.801	35.745	12.602	1.000	20.21
ATOM	2060	C	HIS	A	278	-7.924	32.254	12.971	1.000	19.90
ATOM	2061	O	HIS	A	278	-8.255	32.244	14.165	1.000	22.96
ATOM	2062	N	ASP	A	279	-8.105	31.202	12.180	1.000	18.82
ATOM	2063	CA	ASP	A	279	-8.742	30.004	12.711	1.000	23.67
ATOM	2064	CB	ASP	A	279	-8.995	29.015	11.565	1.000	25.00
ATOM	2065	CG	ASP	A	279	-10.100	29.571	10.669	1.000	50.27
ATOM	2066	OD1	ASP	A	279	-10.713	30.592	11.074	1.000	51.54
ATOM	2067	OD2	ASP	A	279	-10.315	28.989	9.582	1.000	44.55
ATOM	2068	C	ASP	A	279	-7.914	29.352	13.811	1.000	21.55
ATOM	2069	O	ASP	A	279	-8.488	28.905	14.806	1.000	24.05
ATOM	2070	N	LEU	A	280	-6.595	29.300	13.681	1.000	17.02
ATOM	2071	CA	LEU	A	280	-5.777	28.736	14.760	1.000	15.09
ATOM	2072	CB	LEU	A	280	-4.307	28.672	14.339	1.000	16.04
ATOM	2073	CG	LEU	A	280	-3.998	27.877	13.066	1.000	25.79
ATOM	2074	CD1	LEU	A	280	-2.505	27.860	12.743	1.000	19.03
ATOM	2075	CD2	LEU	A	280	-4.512	26.448	13.134	1.000	25.95
ATOM	2076	C	LEU	A	280	-5.928	29.541	16.041	1.000	17.95
ATOM	2077	O	LEU	A	280	-6.048	28.991	17.142	1.000	16.96
ATOM	2078	N	ARG	A	281	-5.940	30.867	15.909	1.000	17.70
ATOM	2079	CA	ARG	A	281	-6.048	31.750	17.064	1.000	20.80

**FIGURE 241**

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Three Dimensional Coordinates of HPTPbeta

ATOM	2080	CB	ARG	A	281	-5.937	33.220	16.611	1.000	16.23
ATOM	2081	CG	ARG	A	281	-4.518	33.577	16.185	1.000	21.03
ATOM	2082	CD	ARG	A	281	-3.551	33.775	17.350	1.000	20.13
ATOM	2083	NE	ARG	A	281	-2.333	34.410	16.826	1.000	22.94
ATOM	2084	CZ	ARG	A	281	-2.155	35.711	16.631	1.000	25.63
ATOM	2085	NH1	ARG	A	281	-3.096	36.606	16.909	1.000	26.26
ATOM	2086	NH2	ARG	A	281	-0.990	36.116	16.136	1.000	24.35
ATOM	2087	C	ARG	A	281	-7.348	31.512	17.810	1.000	18.17
ATOM	2088	O	ARG	A	281	-7.399	31.612	19.040	1.000	16.51
ATOM	2089	N	LEU	A	282	-8.411	31.197	17.055	1.000	14.33
ATOM	2090	CA	LEU	A	282	-9.670	30.904	17.725	1.000	19.27
ATOM	2091	CB	LEU	A	282	-10.750	30.565	16.690	1.000	19.77
ATOM	2092	CG	LEU	A	282	-11.369	31.764	15.966	1.000	29.93
ATOM	2093	CD1	LEU	A	282	-12.445	31.274	15.006	1.000	21.91
ATOM	2094	CD2	LEU	A	282	-11.916	32.785	16.951	1.000	25.11
ATOM	2095	C	LEU	A	282	-9.567	29.715	18.673	1.000	15.90
ATOM	2096	O	LEU	A	282	-10.343	29.644	19.622	1.000	19.86
ATOM	2097	N	HIS	A	283	-8.652	28.771	18.444	1.000	13.25
ATOM	2098	CA	HIS	A	283	-8.655	27.556	19.262	1.000	15.14
ATOM	2099	CB	HIS	A	283	-8.585	26.315	18.339	1.000	17.23
ATOM	2100	CG	HIS	A	283	-9.761	26.332	17.393	1.000	20.06
ATOM	2101	ND1	HIS	A	283	-10.931	25.651	17.625	1.000	31.88
ATOM	2102	CE1	HIS	A	283	-11.785	25.866	16.626	1.000	22.40
ATOM	2103	NE2	HIS	A	283	-11.210	26.665	15.743	1.000	22.21
ATOM	2104	CD2	HIS	A	283	-9.959	26.969	16.216	1.000	21.15
ATOM	2105	C	HIS	A	283	-7.541	27.484	20.301	1.000	17.70
ATOM	2106	O	HIS	A	283	-7.668	26.724	21.286	1.000	18.21
ATOM	2107	N	ARG	A	284	-6.460	28.254	20.155	1.000	18.34
ATOM	2108	CA	ARG	A	284	-5.462	28.288	21.252	1.000	17.74
ATOM	2109	CB	ARG	A	284	-4.494	27.114	21.172	1.000	19.63
ATOM	2110	CG	ARG	A	284	-3.445	26.954	22.275	1.000	18.29
ATOM	2111	CD	ARG	A	284	-2.651	25.656	22.082	1.000	20.72
ATOM	2112	NE	ARG	A	284	-1.458	25.545	22.957	1.000	15.01
ATOM	2113	CZ	ARG	A	284	-1.489	25.046	24.189	1.000	14.81
ATOM	2114	NH1	ARG	A	284	-2.637	24.611	24.697	1.000	14.36
ATOM	2115	NH2	ARG	A	284	-0.419	24.947	24.977	1.000	17.97
ATOM	2116	C	ARG	A	284	-4.746	29.631	21.220	1.000	19.40
ATOM	2117	O	ARG	A	284	-4.570	30.222	20.158	1.000	18.68
ATOM	2118	N	VAL	A	285	-4.331	30.137	22.382	1.000	20.56
ATOM	2119	CA	VAL	A	285	-3.577	31.396	22.467	1.000	19.97
ATOM	2120	CB	VAL	A	285	-3.329	31.773	23.942	1.000	20.57
ATOM	2121	CG1	VAL	A	285	-2.329	30.829	24.584	1.000	17.50
ATOM	2122	CG2	VAL	A	285	-2.811	33.203	24.085	1.000	29.47
ATOM	2123	C	VAL	A	285	-2.259	31.298	21.714	1.000	17.66
ATOM	2124	O	VAL	A	285	-1.641	30.232	21.618	1.000	17.67
ATOM	2125	N	HIS	A	286	-1.814	32.423	21.166	1.000	19.91
ATOM	2126	CA	HIS	A	286	-0.537	32.572	20.510	1.000	25.50
ATOM	2127	CB	HIS	A	286	0.610	32.334	21.518	1.000	24.01
ATOM	2128	CG	HIS	A	286	0.534	33.321	22.640	1.000	27.47
ATOM	2129	ND1	HIS	A	286	0.673	32.943	23.966	1.000	36.12
ATOM	2130	CE1	HIS	A	286	0.544	34.024	24.711	1.000	31.77
ATOM	2131	NE2	HIS	A	286	0.333	35.065	23.927	1.000	32.36

**FIGURE 242**

ATOM	2132	CD2	HIS	A	286	0.312	34.647	22.624	1.000	25.03
ATOM	2133	C	HIS	A	286	-0.272	31.626	19.358	1.000	21.57
ATOM	2134	O	HIS	A	286	0.915	31.389	19.095	1.000	27.54
ATOM	2135	N	MET	A	287	-1.298	31.074	18.700	1.000	20.51
ATOM	2136	CA	MET	A	287	-1.005	30.215	17.540	1.000	17.32
ATOM	2137	CB	MET	A	287	-2.248	29.446	17.099	1.000	15.20
ATOM	2138	CG	MET	A	287	-2.726	28.475	18.174	1.000	18.71
ATOM	2139	SD	MET	A	287	-1.588	27.070	18.339	1.000	23.88
ATOM	2140	CE	MET	A	287	-2.087	26.118	16.902	1.000	40.45
ATOM	2141	C	MET	A	287	-0.449	31.093	16.419	1.000	19.40
ATOM	2142	O	MET	A	287	-1.200	31.865	15.805	1.000	23.59
ATOM	2143	N	VAL	A	288	0.842	30.986	16.169	1.000	18.22
ATOM	2144	CA	VAL	A	288	1.568	31.941	15.322	1.000	22.64
ATOM	2145	CB	VAL	A	288	0.926	32.326	13.986	1.000	17.14
ATOM	2146	CG1	VAL	A	288	1.879	33.209	13.183	1.000	23.13
ATOM	2147	CG2	VAL	A	288	0.607	31.099	13.159	1.000	21.03
ATOM	2148	C	VAL	A	288	1.718	33.186	16.211	1.000	25.94
ATOM	2149	O	VAL	A	288	0.851	34.046	16.243	1.000	27.22
ATOM	2150	N	GLN	A	289	2.824	33.161	16.945	1.000	27.43
ATOM	2151	CA	GLN	A	289	3.003	34.056	18.091	1.000	24.77
ATOM	2152	CB	GLN	A	289	3.839	33.286	19.112	1.000	23.16
ATOM	2153	CG	GLN	A	289	4.041	33.984	20.443	1.000	22.98
ATOM	2154	CD	GLN	A	289	4.639	33.050	21.469	1.000	24.02
ATOM	2155	OE1	GLN	A	289	5.224	32.012	21.115	1.000	27.34
ATOM	2156	NE2	GLN	A	289	4.479	33.454	22.716	1.000	30.58
ATOM	2157	C	GLN	A	289	3.664	35.376	17.751	1.000	28.02
ATOM	2158	O	GLN	A	289	3.430	36.375	18.436	1.000	35.00
ATOM	2159	N	THR	A	290	4.492	35.409	16.717	1.000	22.20
ATOM	2160	CA	THR	A	290	5.169	36.667	16.419	1.000	24.68
ATOM	2161	CB	THR	A	290	6.682	36.492	16.619	1.000	25.80
ATOM	2162	OG1	THR	A	290	7.133	35.616	15.579	1.000	22.41
ATOM	2163	CG2	THR	A	290	7.012	35.803	17.932	1.000	28.39
ATOM	2164	C	THR	A	290	4.964	37.120	14.984	1.000	35.97
ATOM	2165	O	THR	A	290	4.668	36.327	14.090	1.000	25.80
ATOM	2166	N	GLU	A	291	5.148	38.416	14.746	1.000	29.48
ATOM	2167	CA	GLU	A	291	5.038	38.965	13.403	1.000	28.57
ATOM	2168	CB	GLU	A	291	5.285	40.473	13.478	1.000	29.75
ATOM	2169	CG	GLU	A	291	5.073	41.210	12.184	1.000	39.81
ATOM	2170	CD	GLU	A	291	4.812	42.699	12.387	1.000	39.37
ATOM	2171	OE1	GLU	A	291	4.858	43.418	11.371	1.000	42.29
ATOM	2172	OE2	GLU	A	291	4.556	43.148	13.519	1.000	40.22
ATOM	2173	C	GLU	A	291	6.029	38.283	12.484	1.000	23.04
ATOM	2174	O	GLU	A	291	5.824	37.994	11.304	1.000	23.87
ATOM	2175	N	CYS	A	292	7.200	37.987	13.054	1.000	24.91
ATOM	2176	CA	CYS	A	292	8.230	37.313	12.255	1.000	20.83
ATOM	2177	CB	CYS	A	292	9.434	37.106	13.178	1.000	33.84
ATOM	2178	SG	CYS	A	292	10.875	36.380	12.364	1.000	50.67
ATOM	2179	C	CYS	A	292	7.777	35.977	11.679	1.000	25.36
ATOM	2180	O	CYS	A	292	8.056	35.544	10.549	1.000	26.36
ATOM	2181	N	GLN	A	293	7.024	35.250	12.515	1.000	23.19
ATOM	2182	CA	GLN	A	293	6.425	33.998	12.069	1.000	22.92
ATOM	2183	CB	GLN	A	293	5.779	33.269	13.256	1.000	20.65

**FIGURE 243**

ATOM	2184	CG	GLN	A	293	6.783	32.437	14.036	1.000	20.24
ATOM	2185	CD	GLN	A	293	6.355	32.071	15.433	1.000	17.59
ATOM	2186	OE1	GLN	A	293	5.282	32.450	15.901	1.000	18.69
ATOM	2187	NE2	GLN	A	293	7.203	31.336	16.150	1.000	25.13
ATOM	2188	C	GLN	A	293	5.400	34.266	10.967	1.000	17.64
ATOM	2189	O	GLN	A	293	5.398	33.582	9.954	1.000	20.18
ATOM	2190	N	TYR	A	294	4.522	35.253	11.178	1.000	20.42
ATOM	2191	CA	TYR	A	294	3.526	35.600	10.153	1.000	19.65
ATOM	2192	CB	TYR	A	294	2.680	36.758	10.698	1.000	19.00
ATOM	2193	CG	TYR	A	294	1.392	36.980	9.943	1.000	21.07
ATOM	2194	CD1	TYR	A	294	0.438	35.986	9.843	1.000	19.94
ATOM	2195	CE1	TYR	A	294	-0.747	36.155	9.158	1.000	25.08
ATOM	2196	CZ	TYR	A	294	-0.978	37.374	8.547	1.000	34.68
ATOM	2197	OH	TYR	A	294	-2.148	37.565	7.856	1.000	23.20
ATOM	2198	CE2	TYR	A	294	-0.047	38.385	8.622	1.000	26.61
ATOM	2199	CD2	TYR	A	294	1.129	38.197	9.316	1.000	23.82
ATOM	2200	C	TYR	A	294	4.202	35.931	8.834	1.000	24.14
ATOM	2201	O	TYR	A	294	3.860	35.493	7.737	1.000	23.97
ATOM	2202	N	VAL	A	295	5.254	36.744	8.919	1.000	25.60
ATOM	2203	CA	VAL	A	295	6.065	37.085	7.762	1.000	26.06
ATOM	2204	CB	VAL	A	295	7.222	38.039	8.161	1.000	22.22
ATOM	2205	CG1	VAL	A	295	8.189	38.107	6.995	1.000	24.48
ATOM	2206	CG2	VAL	A	295	6.668	39.400	8.553	1.000	22.52
ATOM	2207	C	VAL	A	295	6.648	35.853	7.111	1.000	20.01
ATOM	2208	O	VAL	A	295	6.582	35.637	5.897	1.000	23.07
ATOM	2209	N	TYR	A	296	7.233	34.941	7.888	1.000	29.06
ATOM	2210	CA	TYR	A	296	7.779	33.698	7.342	1.000	20.10
ATOM	2211	CB	TYR	A	296	8.307	32.873	8.528	1.000	20.14
ATOM	2212	CG	TYR	A	296	9.099	31.652	8.140	1.000	22.62
ATOM	2213	CD1	TYR	A	296	10.343	31.723	7.536	1.000	24.11
ATOM	2214	CE1	TYR	A	296	11.044	30.582	7.188	1.000	24.78
ATOM	2215	CZ	TYR	A	296	10.500	29.338	7.451	1.000	30.65
ATOM	2216	OH	TYR	A	296	11.171	28.185	7.115	1.000	25.95
ATOM	2217	CE2	TYR	A	296	9.263	29.241	8.048	1.000	21.75
ATOM	2218	CD2	TYR	A	296	8.570	30.384	8.389	1.000	22.93
ATOM	2219	C	TYR	A	296	6.802	32.832	6.546	1.000	19.59
ATOM	2220	O	TYR	A	296	7.163	32.193	5.540	1.000	20.16
ATOM	2221	N	LEU	A	297	5.555	32.742	6.984	1.000	21.48
ATOM	2222	CA	LEU	A	297	4.501	32.003	6.276	1.000	16.66
ATOM	2223	CB	LEU	A	297	3.186	31.985	7.052	1.000	17.75
ATOM	2224	CG	LEU	A	297	3.215	31.148	8.360	1.000	16.83
ATOM	2225	CD1	LEU	A	297	2.035	31.495	9.235	1.000	17.79
ATOM	2226	CD2	LEU	A	297	3.299	29.668	8.014	1.000	17.48
ATOM	2227	C	LEU	A	297	4.276	32.654	4.904	1.000	17.96
ATOM	2228	O	LEU	A	297	4.156	31.967	3.898	1.000	20.64
ATOM	2229	N	HIS	A	298	4.256	33.978	4.931	1.000	22.58
ATOM	2230	CA	HIS	A	298	4.152	34.678	3.633	1.000	23.47
ATOM	2231	CB	HIS	A	298	3.950	36.157	3.901	1.000	25.50
ATOM	2232	CG	HIS	A	298	2.562	36.496	4.341	1.000	26.24
ATOM	2233	ND1	HIS	A	298	2.118	36.313	5.625	1.000	22.98
ATOM	2234	CE1	HIS	A	298	0.865	36.709	5.744	1.000	24.82
ATOM	2235	NE2	HIS	A	298	0.470	37.141	4.565	1.000	27.56

**FIGURE 244**



ATOM	2236	CD2	HIS	A	298	1.512	37.022	3.673	1.000	23.83
ATOM	2237	C	HIS	A	298	5.379	34.412	2.785	1.000	20.56
ATOM	2238	O	HIS	A	298	5.260	34.132	1.597	1.000	21.25
ATOM	2239	N	GLN	A	299	6.602	34.457	3.323	1.000	24.45
ATOM	2240	CA	GLN	A	299	7.767	34.186	2.484	1.000	23.57
ATOM	2241	CB	GLN	A	299	9.094	34.286	3.248	1.000	24.20
ATOM	2242	CG	GLN	A	299	9.618	35.701	3.344	1.000	38.95
ATOM	2243	CD	GLN	A	299	10.513	35.927	4.544	1.000	41.27
ATOM	2244	OE1	GLN	A	299	10.525	35.111	5.469	1.000	47.05
ATOM	2245	NE2	GLN	A	299	11.230	37.044	4.501	1.000	36.99
ATOM	2246	C	GLN	A	299	7.706	32.790	1.911	1.000	17.62
ATOM	2247	O	GLN	A	299	8.136	32.450	0.809	1.000	25.21
ATOM	2248	N	CYS	A	300	7.152	31.871	2.733	1.000	23.78
ATOM	2249	CA	CYS	A	300	7.113	30.506	2.245	1.000	15.17
ATOM	2250	CB	CYS	A	300	6.555	29.579	3.330	1.000	26.74
ATOM	2251	SG	CYS	A	300	7.710	29.138	4.647	1.000	25.71
ATOM	2252	C	CYS	A	300	6.212	30.350	1.023	1.000	21.29
ATOM	2253	O	CYS	A	300	6.539	29.695	0.050	1.000	24.33
ATOM	2254	N	VAL	A	301	5.033	30.956	1.118	1.000	22.72
ATOM	2255	CA	VAL	A	301	4.112	30.918	-0.014	1.000	22.06
ATOM	2256	CB	VAL	A	301	2.771	31.522	0.407	1.000	23.59
ATOM	2257	CG1	VAL	A	301	1.869	31.780	-0.793	1.000	27.41
ATOM	2258	CG2	VAL	A	301	2.103	30.549	1.385	1.000	22.39
ATOM	2259	C	VAL	A	301	4.739	31.650	-1.213	1.000	26.22
ATOM	2260	O	VAL	A	301	4.684	31.075	-2.300	1.000	25.21
ATOM	2261	N	ARG	A	302	5.299	32.832	-0.941	1.000	30.33
ATOM	2262	CA	ARG	A	302	5.937	33.614	-2.013	1.000	27.54
ATOM	2263	CB	ARG	A	302	6.701	34.808	-1.462	1.000	26.63
ATOM	2264	CG	ARG	A	302	7.324	35.658	-2.568	1.000	39.21
ATOM	2265	CD	ARG	A	302	8.529	36.449	-2.082	1.000	43.43
ATOM	2266	NE	ARG	A	302	9.554	35.568	-1.510	1.000	37.14
ATOM	2267	CZ	ARG	A	302	10.329	35.931	-0.494	1.000	41.54
ATOM	2268	NH1	ARG	A	302	10.197	37.132	0.049	1.000	63.42
ATOM	2269	NH2	ARG	A	302	11.233	35.083	-0.027	1.000	50.68
ATOM	2270	C	ARG	A	302	6.895	32.701	-2.764	1.000	32.29
ATOM	2271	O	ARG	A	302	6.982	32.557	-3.972	1.000	31.68
ATOM	2272	N	ASP	A	303	7.670	31.982	-1.931	1.000	27.62
ATOM	2273	CA	ASP	A	303	8.736	31.200	-2.547	1.000	23.05
ATOM	2274	CB	ASP	A	303	9.749	30.722	-1.496	1.000	29.94
ATOM	2275	CG	ASP	A	303	10.561	31.886	-0.934	1.000	44.96
ATOM	2276	OD1	ASP	A	303	10.575	33.000	-1.513	1.000	37.48
ATOM	2277	OD2	ASP	A	303	11.207	31.698	0.125	1.000	27.41
ATOM	2278	C	ASP	A	303	8.159	30.064	-3.366	1.000	32.89
ATOM	2279	O	ASP	A	303	8.647	29.887	-4.490	1.000	34.89
ATOM	2280	N	VAL	A	304	7.167	29.345	-2.844	1.000	30.50
ATOM	2281	CA	VAL	A	304	6.548	28.260	-3.598	1.000	23.94
ATOM	2282	CB	VAL	A	304	5.491	27.493	-2.783	1.000	27.62
ATOM	2283	CG1	VAL	A	304	4.652	26.589	-3.669	1.000	23.38
ATOM	2284	CG2	VAL	A	304	6.165	26.665	-1.692	1.000	24.59
ATOM	2285	C	VAL	A	304	5.884	28.774	-4.877	1.000	22.14
ATOM	2286	O	VAL	A	304	6.042	28.169	-5.933	1.000	25.47
ATOM	2287	N	LEU	A	305	5.140	29.874	-4.827	1.000	27.71

**FIGURE 245**

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ATOM	2288	CA	LEU	A	305	4.558	30.400	-6.073	1.000	29.38
ATOM	2289	CB	LEU	A	305	3.555	31.506	-5.706	1.000	38.16
ATOM	2290	CG	LEU	A	305	2.392	31.001	-4.830	1.000	35.13
ATOM	2291	CD1	LEU	A	305	1.344	32.082	-4.643	1.000	31.50
ATOM	2292	CD2	LEU	A	305	1.810	29.740	-5.458	1.000	27.65
ATOM	2293	C	LEU	A	305	5.606	30.942	-7.043	1.000	39.73
ATOM	2294	O	LEU	A	305	5.477	30.795	-8.267	1.000	34.97
ATOM	2295	N	ARG	A	306	6.644	31.587	-6.500	1.000	30.15
ATOM	2296	CA	ARG	A	306	7.696	32.191	-7.303	1.000	41.94
ATOM	2297	CB	ARG	A	306	8.843	32.715	-6.443	1.000	44.09
ATOM	2298	CG	ARG	A	306	9.589	33.889	-7.052	1.000	39.22
ATOM	2299	CD	ARG	A	306	10.448	34.547	-5.980	1.000	42.72
ATOM	2300	NE	ARG	A	306	9.979	35.884	-5.635	1.000	52.78
ATOM	2301	CZ	ARG	A	306	10.606	36.671	-4.767	1.000	54.00
ATOM	2302	NH1	ARG	A	306	11.714	36.247	-4.169	1.000	67.12
ATOM	2303	NH2	ARG	A	306	10.130	37.875	-4.496	1.000	46.01
ATOM	2304	C	ARG	A	306	8.287	31.172	-8.271	1.000	29.94
ATOM	2305	O	ARG	A	306	8.462	31.437	-9.450	1.000	37.35
ATOM	2306	N	ALA	A	307	8.569	30.025	-7.699	1.000	31.66
ATOM	2307	CA	ALA	A	307	9.158	28.861	-8.317	1.000	23.60
ATOM	2308	CB	ALA	A	307	9.447	27.819	-7.233	1.000	26.10
ATOM	2309	C	ALA	A	307	8.306	28.189	-9.381	1.000	47.11
ATOM	2310	O	ALA	A	307	8.799	28.044	-10.499	1.000	44.35
ATOM	2311	N	ARG	A	308	7.102	27.762	-9.042	1.000	52.74
ATOM	2312	CA	ARG	A	308	6.308	26.829	-9.829	1.000	54.48
ATOM	2313	CB	ARG	A	308	4.971	26.558	-9.115	1.000	57.15
ATOM	2314	CG	ARG	A	308	5.194	25.951	-7.736	1.000	58.94
ATOM	2315	CD	ARG	A	308	4.116	24.969	-7.323	1.000	55.91
ATOM	2316	NE	ARG	A	308	2.804	25.598	-7.229	1.000	48.91
ATOM	2317	CZ	ARG	A	308	1.773	25.117	-6.536	1.000	51.64
ATOM	2318	NH1	ARG	A	308	1.868	23.990	-5.844	1.000	35.99
ATOM	2319	NH2	ARG	A	308	0.639	25.806	-6.558	1.000	44.89
ATOM	2320	C	ARG	A	308	6.063	27.269	-11.267	1.000	53.61
ATOM	2321	O	ARG	A	308	5.807	26.391	-12.115	1.000	48.27
ATOM	2322	N	LYS	A	309	6.155	28.565	-11.523	1.000	43.56
ATOM	2323	CA	LYS	A	309	6.129	29.126	-12.866	1.000	55.87
ATOM	2324	CB	LYS	A	309	6.515	30.617	-12.836	1.000	53.73
ATOM	2325	CG	LYS	A	309	5.322	31.519	-12.555	1.000	50.14
ATOM	2326	CD	LYS	A	309	5.733	32.861	-11.988	1.000	51.79
ATOM	2327	CE	LYS	A	309	5.194	33.994	-12.859	1.000	58.07
ATOM	2328	NZ	LYS	A	309	5.302	35.321	-12.188	1.000	68.64
ATOM	2329	C	LYS	A	309	7.071	28.394	-13.819	1.000	49.69
ATOM	2330	O	LYS	A	309	6.769	28.146	-14.991	1.000	49.16
ATOM	2331	N	LEU	A	310	8.259	28.052	-13.326	1.000	28.26
ATOM	2332	CA	LEU	A	310	9.179	27.229	-14.104	1.000	38.83
ATOM	2333	CB	LEU	A	310	10.617	27.612	-13.747	1.000	55.29
ATOM	2334	CG	LEU	A	310	10.793	29.062	-13.278	1.000	62.65
ATOM	2335	CD1	LEU	A	310	12.262	29.360	-12.996	1.000	82.48
ATOM	2336	CD2	LEU	A	310	10.245	30.039	-14.295	1.000	58.72
ATOM	2337	C	LEU	A	310	8.920	25.745	-13.861	1.000	34.79
ATOM	2338	O1	HOH	W	1	2.014	17.687	26.597	1.000	14.70
ATOM	2339	O1	HOH	W	2	-5.416	28.864	24.748	1.000	14.82

**FIGURE 246**

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ATOM	2340	O1	HOH	W	3	9.941	34.403	15.794	1.000	20.77
ATOM	2341	O1	HOH	W	4	1.150	20.544	3.861	1.000	16.32
ATOM	2342	O1	HOH	W	5	11.855	1.496	23.723	1.000	20.79
ATOM	2343	O1	HOH	W	6	11.026	19.440	31.061	1.000	22.81
ATOM	2344	O1	HOH	W	7	-4.100	15.347	34.619	1.000	20.35
ATOM	2345	O1	HOH	W	8	-8.502	35.220	27.278	1.000	20.31
ATOM	2346	O1	HOH	W	9	10.956	8.876	28.629	1.000	24.20
ATOM	2347	O1	HOH	W	10	13.818	22.433	16.330	1.000	21.57
ATOM	2348	O1	HOH	W	11	-4.748	20.337	7.520	1.000	18.34
ATOM	2349	O1	HOH	W	12	7.144	17.757	36.248	1.000	23.39
ATOM	2350	O1	HOH	W	13	-8.500	25.553	30.582	1.000	21.46
ATOM	2351	O1	HOH	W	14	1.872	18.169	29.324	1.000	19.74
ATOM	2352	O1	HOH	W	15	-12.583	28.920	26.833	1.000	23.46
ATOM	2353	O1	HOH	W	16	17.845	15.230	13.268	1.000	25.48
ATOM	2354	O1	HOH	W	17	2.522	25.792	29.444	1.000	21.14
ATOM	2355	O1	HOH	W	18	-12.414	36.213	18.671	1.000	35.42
ATOM	2356	O1	HOH	W	19	-0.308	19.015	30.907	1.000	20.05
ATOM	2357	O1	HOH	W	20	-4.507	15.507	8.656	1.000	26.56
ATOM	2358	O1	HOH	W	21	-1.463	16.804	32.355	1.000	19.87
ATOM	2359	O1	HOH	W	22	-7.774	24.896	24.411	1.000	25.30
ATOM	2360	O1	HOH	W	23	2.487	23.390	-2.046	1.000	21.28
ATOM	2361	O1	HOH	W	24	-5.084	36.399	19.340	1.000	24.16
ATOM	2362	O1	HOH	W	25	11.554	11.480	16.357	1.000	25.31
ATOM	2363	O1	HOH	W	26	12.946	5.581	11.917	1.000	24.23
ATOM	2364	O1	HOH	W	27	-12.980	20.577	24.368	1.000	27.97
ATOM	2365	O1	HOH	W	28	10.212	31.138	15.942	1.000	33.79
ATOM	2366	O1	HOH	W	29	14.372	4.995	27.900	1.000	26.39
ATOM	2367	O1	HOH	W	30	-2.960	34.484	1.831	1.000	27.40
ATOM	2368	O1	HOH	W	31	10.824	30.078	18.289	1.000	25.67
ATOM	2369	O1	HOH	W	32	13.982	2.205	27.167	1.000	25.41
ATOM	2370	O1	HOH	W	33	1.575	12.107	33.860	1.000	34.16
ATOM	2371	O1	HOH	W	34	-3.137	19.220	-7.395	1.000	25.27
ATOM	2372	O1	HOH	W	35	-6.170	33.272	20.828	1.000	21.49
ATOM	2373	O1	HOH	W	36	-1.632	39.007	16.222	1.000	27.21
ATOM	2374	O1	HOH	W	37	7.347	31.206	19.263	1.000	26.77
ATOM	2375	O1	HOH	W	38	9.444	26.520	21.341	1.000	29.37
ATOM	2376	O1	HOH	W	39	-8.237	9.947	35.385	1.000	47.49
ATOM	2377	O1	HOH	W	40	-2.103	38.773	20.445	1.000	27.92
ATOM	2378	O1	HOH	W	41	-9.820	28.498	38.052	1.000	26.65
ATOM	2379	O1	HOH	W	42	10.051	20.936	-0.828	1.000	26.93
ATOM	2380	O1	HOH	W	43	-14.963	17.351	10.401	1.000	37.99
ATOM	2381	O1	HOH	W	44	15.436	8.322	21.787	1.000	29.21
ATOM	2382	O1	HOH	W	45	1.871	19.354	1.571	1.000	22.03
ATOM	2383	O1	HOH	W	46	-7.599	19.535	29.453	1.000	22.96
ATOM	2384	O1	HOH	W	47	3.330	17.045	1.103	1.000	26.08
ATOM	2385	O1	HOH	W	48	14.921	28.549	0.827	1.000	30.69
ATOM	2386	O1	HOH	W	49	4.221	11.439	33.921	1.000	28.27
ATOM	2387	O1	HOH	W	50	6.471	7.214	33.313	1.000	30.73
ATOM	2388	O1	HOH	W	51	6.997	11.081	3.016	1.000	29.06
ATOM	2389	O1	HOH	W	52	9.828	14.413	1.356	1.000	36.16
ATOM	2390	O1	HOH	W	53	-2.049	5.578	31.420	1.000	34.40
ATOM	2391	O1	HOH	W	54	7.546	28.605	19.653	1.000	38.00

**FIGURE 247**

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ATOM	2392	O1	HOH	W	55	-11.689	15.787	24.708	1.000	27.99
ATOM	2393	O1	HOH	W	56	-1.930	38.222	3.832	1.000	26.57
ATOM	2394	O1	HOH	W	57	3.629	5.858	35.758	1.000	33.41
ATOM	2395	O1	HOH	W	58	2.994	20.770	-0.697	1.000	26.75
ATOM	2396	O1	HOH	W	59	-13.363	22.643	29.523	1.000	32.53
ATOM	2397	O1	HOH	W	60	-3.967	36.098	3.552	1.000	24.24
ATOM	2398	O1	HOH	W	61	-13.003	28.717	20.098	1.000	30.30
ATOM	2399	O1	HOH	W	62	-3.571	34.737	21.021	1.000	24.77
ATOM	2400	O1	HOH	W	63	-3.353	25.782	37.784	1.000	31.16
ATOM	2401	O1	HOH	W	64	-4.181	15.085	11.174	1.000	23.09
ATOM	2402	O1	HOH	W	65	14.882	1.430	29.740	1.000	32.36
ATOM	2403	O1	HOH	W	66	-2.385	10.919	14.099	1.000	31.04
ATOM	2404	O1	HOH	W	67	-2.022	11.997	12.100	1.000	34.23
ATOM	2405	O1	HOH	W	68	-0.074	6.701	29.852	1.000	28.84
ATOM	2406	O1	HOH	W	69	13.012	17.319	31.049	1.000	34.35
ATOM	2407	O1	HOH	W	70	-0.945	-1.322	32.490	1.000	27.87
ATOM	2408	O1	HOH	W	71	-14.687	16.999	7.638	1.000	39.15
ATOM	2409	O1	HOH	W	72	5.621	40.002	16.979	1.000	36.19
ATOM	2410	O1	HOH	W	73	5.019	34.934	-5.124	1.000	30.14
ATOM	2411	O1	HOH	W	74	-13.469	20.866	21.275	1.000	35.79
ATOM	2412	O1	HOH	W	75	-6.587	38.439	-4.937	1.000	34.64
ATOM	2413	O1	HOH	W	76	-6.586	20.943	1.389	1.000	34.28
ATOM	2414	O1	HOH	W	77	16.678	2.326	14.116	1.000	34.62
ATOM	2415	O1	HOH	W	78	-0.115	2.845	36.291	1.000	30.53
ATOM	2416	O1	HOH	W	79	-0.221	19.000	-0.242	1.000	25.17
ATOM	2417	O1	HOH	W	80	18.011	13.617	17.062	1.000	28.47
ATOM	2418	O1	HOH	W	81	8.378	5.752	31.945	1.000	25.91
ATOM	2419	O1	HOH	W	82	-1.655	40.288	22.680	1.000	32.53
ATOM	2420	O1	HOH	W	83	6.545	30.062	22.582	1.000	41.03
ATOM	2421	O1	HOH	W	84	8.148	39.805	15.692	1.000	35.25
ATOM	2422	O1	HOH	W	85	-14.461	20.880	32.244	1.000	35.66
ATOM	2423	O1	HOH	W	86	5.851	3.752	34.055	1.000	36.71
ATOM	2424	O1	HOH	W	87	-0.955	1.090	13.636	1.000	39.92
ATOM	2425	O1	HOH	W	88	8.422	39.414	-0.957	1.000	48.27
ATOM	2426	O1	HOH	W	89	10.954	39.318	2.465	1.000	44.33
ATOM	2427	O1	HOH	W	90	2.579	50.503	2.300	1.000	54.86
ATOM	2428	O1	HOH	W	91	3.085	48.432	3.786	1.000	37.84
ATOM	2429	O1	HOH	W	92	6.015	47.673	10.758	1.000	46.93
ATOM	2430	O1	HOH	W	93	-4.388	-7.612	19.050	1.000	45.59
ATOM	2431	O1	HOH	W	94	0.214	18.775	39.716	1.000	51.95
ATOM	2432	O1	HOH	W	95	-12.966	13.296	30.655	1.000	33.33
ATOM	2433	O1	HOH	W	96	0.538	14.855	35.881	1.000	40.77
ATOM	2434	O1	HOH	W	97	17.070	25.109	3.747	1.000	45.67
ATOM	2435	O1	HOH	W	98	11.830	27.957	-0.458	1.000	43.72
ATOM	2436	O1	HOH	W	99	-4.616	12.312	11.217	1.000	40.90
ATOM	2437	O1	HOH	W	100	11.872	35.092	7.761	1.000	55.45
ATOM	2438	O1	HOH	W	101	10.663	36.578	9.005	1.000	38.01
ATOM	2439	O1	HOH	W	102	14.787	30.925	2.347	1.000	38.58
ATOM	2440	O1	HOH	W	103	-7.639	22.432	-0.126	1.000	30.65
ATOM	2441	O1	HOH	W	104	-0.768	39.758	18.325	1.000	32.85
ATOM	2442	O1	HOH	W	105	11.805	25.356	22.168	1.000	40.43
ATOM	2443	O1	HOH	W	106	20.422	18.338	13.902	1.000	45.59

**FIGURE 248**

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ATOM	2444	O1	HOH W 107	10.183	24.874	30.453	1.000	38.68
ATOM	2445	O1	HOH W 108	16.785	32.728	12.612	1.000	31.96
ATOM	2446	O1	HOH W 109	13.492	30.752	17.655	1.000	39.37
ATOM	2447	O1	HOH W 110	-3.931	16.862	2.029	1.000	30.36
ATOM	2448	O1	HOH W 111	-7.045	29.232	5.340	1.000	28.48
ATOM	2449	O1	HOH W 112	-7.762	11.786	25.923	1.000	28.04
ATOM	2450	O1	HOH W 113	-13.605	33.677	20.128	1.000	32.20
ATOM	2451	O1	HOH W 114	10.065	39.638	9.803	1.000	38.13
ATOM	2452	O1	HOH W 115	-8.934	24.435	1.974	1.000	31.50
ATOM	2453	O1	HOH W 116	17.216	10.741	21.573	1.000	34.76
ATOM	2454	O1	HOH W 117	-11.923	22.839	19.220	1.000	39.73
ATOM	2455	O1	HOH W 118	7.473	12.705	1.120	1.000	36.05
ATOM	2456	O1	HOH W 119	5.483	8.873	2.549	1.000	43.08
ATOM	2457	O1	HOH W 120	-14.010	13.235	28.254	1.000	43.67
ATOM	2458	O1	HOH W 121	-6.810	4.829	28.513	1.000	38.61
ATOM	2459	O1	HOH W 122	-14.132	10.542	31.339	1.000	58.03
ATOM	2460	O1	HOH W 123	5.390	21.831	37.038	1.000	43.01
ATOM	2461	O1	HOH W 124	-14.479	21.966	26.038	1.000	35.30
ATOM	2462	O1	HOH W 125	4.264	17.945	-1.288	1.000	36.29
ATOM	2463	O1	HOH W 126	23.828	24.174	30.873	1.000	49.73
ATOM	2464	O1	HOH W 127	-6.176	26.450	5.939	1.000	65.00
ATOM	2465	O1	HOH W 128	3.350	34.622	26.589	1.000	39.90
ATOM	2466	O1	HOH W 129	16.916	27.171	7.485	1.000	41.94
ATOM	2467	O1	HOH W 130	-11.189	32.210	8.814	1.000	35.24
ATOM	2468	O1	HOH W 131	-4.460	2.050	29.021	1.000	40.95
ATOM	2469	O1	HOH W 132	-15.621	16.785	16.397	1.000	51.14
ATOM	2470	O1	HOH W 133	13.141	-0.750	30.285	1.000	35.50
ATOM	2471	O1	HOH W 134	16.391	14.131	18.996	1.000	33.72
ATOM	2472	O1	HOH W 135	15.720	23.607	18.037	1.000	36.32
ATOM	2473	O1	HOH W 136	-9.180	28.989	7.435	1.000	51.57
ATOM	2474	O1	HOH W 137	-13.398	18.098	35.125	1.000	52.51
ATOM	2475	O1	HOH W 138	-14.347	26.998	19.051	1.000	43.88
ATOM	2476	O1	HOH W 139	17.167	1.215	28.662	1.000	40.00
ATOM	2477	O1	HOH W 140	-5.468	13.807	7.111	1.000	45.45
ATOM	2478	O1	HOH W 141	-4.475	4.635	29.841	1.000	36.10
ATOM	2479	O1	HOH W 142	-12.828	27.385	13.802	1.000	33.50
ATOM	2480	O1	HOH W 143	-13.938	17.712	24.521	1.000	31.09
ATOM	2481	O1	HOH W 144	16.503	26.254	10.447	1.000	46.13
ATOM	2482	O1	HOH W 145	20.599	20.875	15.821	1.000	41.98
ATOM	2483	O1	HOH W 146	20.503	19.870	22.082	1.000	51.04
ATOM	2484	O1	HOH W 147	4.262	18.175	36.175	1.000	33.32
ATOM	2485	O1	HOH W 148	-0.297	26.441	36.081	1.000	52.28
ATOM	2486	O1	HOH W 149	20.297	28.737	16.671	1.000	44.74
ATOM	2487	O1	HOH W 150	7.203	23.388	35.762	1.000	66.45
ATOM	2488	O1	HOH W 151	10.549	7.398	31.284	1.000	38.68
ATOM	2489	O1	HOH W 152	6.081	38.872	-2.812	1.000	40.08
ATOM	2490	O1	HOH W 153	13.265	33.000	1.040	1.000	36.24
ATOM	2491	O1	HOH W 154	-12.530	39.835	27.125	1.000	105.41
ATOM	2492	O1	HOH W 155	11.420	11.430	30.533	1.000	47.78
ATOM	2493	O1	HOH W 156	0.901	8.244	35.852	1.000	33.14
ATOM	2494	O1	HOH W 157	-7.963	29.336	-0.295	1.000	50.61
ATOM	2495	O1	HOH W 158	20.035	12.009	18.471	1.000	34.37

**FIGURE 249**

ATOM	2496	O1	HOH W 159	-4.350	3.543	10.491	1.000	84.51
ATOM	2497	O1	HOH W 160	4.286	9.674	36.102	1.000	40.87
ATOM	2498	O1	HOH W 161	-8.003	41.353	17.020	1.000	48.97
ATOM	2499	O1	HOH W 162	15.195	17.562	28.763	1.000	43.23
ATOM	2500	O1	HOH W 163	-10.778	5.540	28.103	1.000	47.36
ATOM	2501	O1	HOH W 164	19.303	31.924	16.796	1.000	51.07
ATOM	2502	O1	HOH W 165	-4.383	19.665	-0.828	1.000	32.47
ATOM	2503	O1	HOH W 166	8.839	24.816	-3.783	1.000	41.71
ATOM	2504	O1	HOH W 167	6.219	15.861	-1.300	1.000	43.10
ATOM	2505	O1	HOH W 168	10.025	33.624	18.562	1.000	40.32
ATOM	2506	O1	HOH W 169	7.836	30.797	27.712	1.000	56.16
ATOM	2507	O1	HOH W 170	-9.946	19.362	35.362	1.000	41.05
ATOM	2508	O1	HOH W 171	22.397	23.179	24.094	1.000	37.17
ATOM	2509	O1	HOH W 172	6.196	31.438	24.998	1.000	39.04
ATOM	2510	O1	HOH W 173	2.656	29.647	-11.398	1.000	69.02
ATOM	2511	O1	HOH W 174	-7.993	19.195	2.017	1.000	51.50
ATOM	2512	O1	HOH W 175	-7.725	9.838	10.116	1.000	41.23
ATOM	2513	O1	HOH W 176	10.217	8.209	35.322	1.000	52.55
ATOM	2514	O1	HOH W 177	22.886	18.048	5.069	1.000	50.22
ATOM	2515	O1	HOH W 178	13.259	6.843	29.204	1.000	37.28
ATOM	2516	O1	HOH W 179	-11.344	39.086	20.797	1.000	63.58
ATOM	2517	O1	HOH W 180	13.661	33.712	7.349	1.000	48.08
ATOM	2518	O1	HOH W 181	-3.554	0.841	36.601	1.000	44.25
ATOM	2519	O1	HOH W 182	2.483	16.905	37.338	1.000	45.30
ATOM	2520	O1	HOH W 183	20.094	7.002	12.783	1.000	44.53
ATOM	2521	O1	HOH W 184	13.549	19.866	-1.559	1.000	51.39
ATOM	2522	O1	HOH W 185	11.649	-2.468	19.869	1.000	58.70
ATOM	2523	O1	HOH W 186	-11.387	9.057	20.869	1.000	50.26
ATOM	2524	O1	HOH W 187	2.270	53.746	3.948	1.000	77.69
ATOM	2525	O1	HOH W 188	7.272	43.089	10.416	1.000	40.06
ATOM	2526	O1	HOH W 189	-10.704	43.630	20.531	1.000	67.96
ATOM	2527	O1	HOH W 190	-10.161	31.212	-6.317	1.000	49.46
ATOM	2528	O1	HOH W 191	9.522	6.064	4.334	1.000	40.34
ATOM	2529	O1	HOH W 192	16.516	16.717	21.174	1.000	20.43
ATOM	2530	O1	HOH W 193	-0.857	36.253	20.284	1.000	32.45
ATOM	2531	O1	HOH W 194	18.504	18.275	22.970	1.000	34.08
ATOM	2532	O1	HOH W 195	5.801	29.116	-17.383	1.000	43.44
ATOM	2533	O1	HOH W 196	-7.990	22.703	42.079	1.000	44.28
ATOM	2534	O1	HOH W 197	-6.632	16.747	36.401	1.000	37.74
ATOM	2535	O1	HOH W 198	-11.815	21.607	16.468	1.000	30.66
ATOM	2536	O1	HOH W 199	-2.843	32.478	-11.634	1.000	33.04
ATOM	2537	O1	HOH W 200	-10.429	21.931	2.610	1.000	43.58
ATOM	2538	O1	HOH W 201	-12.782	11.466	36.315	1.000	64.73
ATOM	2539	O1	HOH W 202	-1.120	8.730	9.515	1.000	39.25
ATOM	2540	O1	HOH W 203	7.752	27.565	23.146	1.000	40.81
ATOM	2541	O1	HOH W 204	-4.173	17.946	-3.218	1.000	40.93
ATOM	2542	O1	HOH W 205	-12.084	5.496	19.653	1.000	41.61
ATOM	2543	O1	HOH W 206	1.514	0.000	33.985	1.000	47.99
ATOM	2544	O1	HOH W 207	-4.358	32.825	-9.953	1.000	43.82
ATOM	2545	O1	HOH W 208	14.414	14.005	29.829	1.000	45.03
ATOM	2546	O1	HOH W 209	22.352	27.139	21.459	1.000	63.00
ATOM	2547	O1	HOH W 210	-12.128	21.274	9.705	1.000	39.35

**FIGURE 250**

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ATOM	2548	01	HOH W 211	-15.431	29.589	23.297	1.000	42.10
ATOM	2549	01	HOH W 212	15.717	21.134	2.051	1.000	44.92
ATOM	2550	01	HOH W 213	22.149	19.371	9.989	1.000	42.03
ATOM	2551	01	HOH W 214	-12.478	28.555	38.340	1.000	49.23
ATOM	2552	01	HOH W 215	-10.373	26.583	11.557	1.000	78.42
ATOM	2553	01	HOH W 216	5.904	28.076	21.168	1.000	47.47
ATOM	2554	01	HOH W 217	18.063	28.353	10.622	1.000	39.47
ATOM	2555	01	HOH W 218	5.741	29.596	34.757	1.000	50.24
ATOM	2556	01	HOH W 219	23.482	28.211	28.256	1.000	35.92
ATOM	2557	01	HOH W 220	20.729	22.839	22.289	1.000	47.92
ATOM	2558	01	HOH W 221	-13.743	23.631	15.768	1.000	56.18
ATOM	2559	01	HOH W 222	0.808	4.763	11.965	1.000	52.58
ATOM	2560	01	HOH W 223	19.695	26.083	30.808	1.000	48.34
ATOM	2561	01	HOH W 224	-10.086	39.766	26.571	1.000	37.07
ATOM	2562	01	HOH W 225	-8.185	26.002	12.785	1.000	43.04
ATOM	2563	01	HOH W 226	-15.767	14.896	27.476	1.000	47.84
ATOM	2564	01	HOH W 227	-8.943	41.210	23.852	1.000	51.44
ATOM	2565	01	HOH W 228	-13.243	38.293	6.326	1.000	46.48
ATOM	2566	01	HOH W 229	18.663	0.325	20.946	1.000	45.85
ATOM	2567	01	HOH W 230	12.773	6.887	31.536	1.000	35.71
ATOM	2568	01	HOH W 231	-7.081	32.709	-9.020	1.000	54.13
ATOM	2569	01	HOH W 232	-14.685	24.271	19.574	1.000	44.68
ATOM	2570	01	HOH W 233	1.541	7.037	10.861	1.000	42.37
ATOM	2571	01	HOH W 234	17.407	14.624	24.034	1.000	49.34
ATOM	2572	01	HOH W 235	-8.898	25.154	4.255	1.000	55.39
ATOM	2573	01	HOH W 236	9.061	28.544	24.947	1.000	39.46
ATOM	2574	01	HOH W 237	-13.663	15.439	32.214	1.000	45.65
ATOM	2575	01	HOH W 238	13.791	17.581	34.085	1.000	46.31
ATOM	2576	01	HOH W 239	-11.961	16.055	13.445	1.000	40.48
ATOM	2577	01	HOH W 240	15.223	9.544	28.176	1.000	44.69
ATOM	2578	01	HOH W 241	-13.353	32.529	7.227	1.000	57.27
ATOM	2579	01	HOH W 242	8.996	26.371	-16.754	1.000	48.64
ATOM	2580	01	HOH W 243	6.092	23.068	-5.367	1.000	48.87
ATOM	2581	01	HOH W 244	22.747	32.593	25.452	1.000	44.40
ATOM	2582	01	HOH W 245	-0.304	32.548	-11.298	1.000	48.96
ATOM	2583	01	HOH W 246	-4.988	-3.152	23.809	1.000	62.34
ATOM	2584	01	HOH W 247	1.129	39.597	-7.798	1.000	53.14
ATOM	2585	01	HOH W 248	-6.772	14.727	4.405	1.000	81.57
ATOM	2586	01	HOH W 249	17.223	10.068	27.178	1.000	40.37
ATOM	2587	01	HOH W 250	17.655	12.530	28.719	1.000	50.20
ATOM	2588	01	HOH W 251	4.037	7.351	8.012	1.000	58.42
ATOM	2589	01	HOH W 252	-1.828	7.240	33.526	1.000	45.82
ATOM	2590	01	HOH W 253	-12.257	12.014	23.313	1.000	42.52
ATOM	2591	01	HOH W 254	18.878	30.723	23.928	1.000	81.96
ATOM	2592	01	HOH W 255	-2.406	13.001	35.608	1.000	49.36
ATOM	2593	01	HOH W 256	0.100	42.639	18.634	1.000	42.69
ATOM	2594	01	HOH W 257	8.781	15.841	-0.776	1.000	42.10
ATOM	2595	01	HOH W 258	8.836	41.627	14.232	1.000	37.51
ATOM	2596	01	HOH W 259	10.082	41.227	7.652	1.000	51.86
ATOM	2597	01	HOH W 260	16.536	4.886	29.969	1.000	46.99
ATOM	2598	01	HOH W 261	8.904	2.996	11.102	1.000	59.35
ATOM	2599	01	HOH W 262	17.169	18.558	5.383	1.000	42.46

**FIGURE 251**

ATOM	2600	O1	HOH W 263	22.449	12.846	9.882	1.000	39.10
ATOM	2601	O1	HOH W 264	11.441	22.960	-0.297	1.000	46.40
ATOM	2602	O1	HOH W 265	12.891	35.186	-7.958	1.000	59.81
ATOM	2603	O1	HOH W 266	-13.897	24.909	13.026	1.000	45.86
ATOM	2604	O1	HOH W 267	19.060	9.563	25.380	1.000	45.48
ATOM	2605	O1	HOH W 268	3.802	25.392	-14.805	1.000	50.59
ATOM	2606	O1	HOH W 269	16.184	28.549	22.110	1.000	43.02
ATOM	2607	O1	HOH W 270	-1.154	37.399	-12.192	1.000	53.68
ATOM	2608	O1	HOH W 271	-4.123	-5.269	18.602	1.000	79.29
ATOM	2609	O1	HOH W 272	-7.384	2.425	21.048	1.000	57.48
ATOM	2610	O1	HOH W 273	18.456	25.557	18.479	1.000	44.20
ATOM	2611	O1	HOH W 274	6.328	1.205	9.458	1.000	59.21
ATOM	2612	O1	HOH W 275	-14.117	5.491	34.696	1.000	60.85
ATOM	2613	O1	HOH W 276	-10.629	13.583	38.737	1.000	45.87
ATOM	2614	O1	HOH W 277	-11.913	20.085	36.715	1.000	51.46
ATOM	2615	O1	HOH W 278	-8.375	43.387	4.147	1.000	45.52
ATOM	2616	O1	HOH W 279	-9.702	-4.797	28.731	1.000	54.85
ATOM	2617	O1	HOH W 280	-12.340	25.454	10.801	1.000	58.08
ATOM	2618	O1	HOH W 281	-4.825	10.727	8.928	1.000	55.18
ATOM	2619	O1	HOH W 282	-0.469	27.271	21.450	1.000	143.86
ATOM	2620	O1	HOH W 283	1.342	6.223	-2.164	1.000	59.20
ATOM	2621	O1	HOH W 284	-13.187	3.566	20.610	1.000	59.09
ATOM	2622	O1	HOH W 285	-10.963	-4.464	24.556	1.000	70.44
ATOM	2623	O1	HOH W 286	2.082	7.263	5.127	1.000	59.07
ATOM	2624	O1	HOH W 287	-14.375	31.030	19.349	1.000	42.90
ATOM	2625	O1	HOH W 288	-13.932	23.344	10.653	1.000	42.75
ATOM	2626	O1	HOH W 289	-10.496	31.449	2.357	1.000	37.15
ATOM	2627	O1	HOH W 290	-5.935	42.393	1.278	1.000	48.92
ATOM	2628	O1	HOH W 291	-2.417	29.064	38.937	1.000	98.13
ATOM	2629	O1	HOH W 292	4.370	7.161	3.591	1.000	54.78
ATOM	2630	O1	HOH W 293	-12.101	29.567	-1.765	1.000	45.21
ATOM	2631	O1	HOH W 294	-2.974	52.167	6.924	1.000	54.46
ATOM	2632	O1	HOH W 295	6.373	24.732	-15.736	1.000	55.54
ATOM	2633	O1	HOH W 296	5.144	2.212	15.505	1.000	132.19
ATOM	2634	O1	HOH W 297	4.119	25.540	-18.043	1.000	63.04
ATOM	2635	O1	HOH W 298	-6.584	46.120	5.004	1.000	61.91
ATOM	2636	O1	HOH W 299	17.182	15.542	27.047	1.000	45.04
ATOM	2637	O1	HOH W 300	12.276	33.194	-3.953	1.000	50.26
ATOM	2638	O1	HOH W 301	4.057	25.805	36.737	1.000	51.03
ATOM	2639	O1	HOH W 302	17.210	27.508	26.182	1.000	43.16
ATOM	2640	O1	HOH W 303	-13.383	20.836	7.055	1.000	53.40
ATOM	2641	O1	HOH W 304	19.482	17.276	28.478	1.000	60.44
ATOM	2642	O1	HOH W 305	-6.950	41.249	-1.159	1.000	53.64
ATOM	2643	O1	HOH W 306	-10.165	8.508	39.743	1.000	61.15
ATOM	2644	O1	HOH W 307	4.134	19.769	-3.502	1.000	52.25
ATOM	2645	O1	HOH W 308	3.101	15.563	-2.031	1.000	45.06
ATOM	2646	O1	HOH W 309	8.724	40.739	11.753	1.000	47.08
ATOM	2647	O1	HOH W 310	-10.535	2.414	25.587	1.000	88.70
END								

**FIGURE 252**



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Three Dimensional Coordinates of HPTPbeta

CRYST1	38.852	69.610	117.777	90.00	90.00	90.00	P 21 21 21
ATOM	1	N	LYS A	19	-13.362	32.383	10.240 1.00 48.36
ATOM	2	CA	LYS A	19	-13.935	33.412	9.318 1.00 47.56
ATOM	3	CB	LYS A	19	-14.789	34.414	10.102 1.00 48.40
ATOM	4	CG	LYS A	19	-16.107	34.813	9.444 1.00 50.42
ATOM	5	CD	LYS A	19	-16.509	36.212	9.896 1.00 51.36
ATOM	6	CE	LYS A	19	-17.815	36.655	9.263 1.00 52.93
ATOM	7	NZ	LYS A	19	-18.963	36.009	9.969 1.00 50.02
ATOM	8	C	LYS A	19	-12.885	34.153	8.487 1.00 45.61
ATOM	9	O	LYS A	19	-12.823	33.994	7.265 1.00 46.13
ATOM	10	N	THR A	20	-12.070	34.966	9.153 1.00 43.56
ATOM	11	CA	THR A	20	-11.312	35.995	8.460 1.00 40.00
ATOM	12	CB	THR A	20	-11.081	37.248	9.348 1.00 41.25
ATOM	13	OG1	THR A	20	-11.320	38.444	8.598 1.00 41.63
ATOM	14	CG2	THR A	20	-9.647	37.393	9.810 1.00 43.82
ATOM	15	C	THR A	20	-10.091	35.385	7.764 1.00 36.65
ATOM	16	O	THR A	20	-9.557	34.349	8.149 1.00 34.08
ATOM	17	N	SER A	21	-9.707	36.004	6.662 1.00 33.82
ATOM	18	CA	SER A	21	-9.158	35.238	5.553 1.00 31.39
ATOM	19	CB	SER A	21	-10.279	34.427	4.900 1.00 32.67
ATOM	20	OG	SER A	21	-9.913	33.919	3.630 1.00 34.27
ATOM	21	C	SER A	21	-8.654	36.302	4.606 1.00 31.16
ATOM	22	O	SER A	21	-9.312	37.328	4.434 1.00 30.44
ATOM	23	N	CYS A	22	-7.494	36.064	4.005 1.00 28.46
ATOM	24	CA	CYS A	22	-6.989	36.913	2.927 1.00 28.63
ATOM	25	CB	CYS A	22	-5.891	37.819	3.465 1.00 28.57
ATOM	26	SG	ACYS A	22	-6.413	38.961	4.757 0.50 34.99
ATOM	27	SG	BCYS A	22	-5.652	39.300	2.462 0.50 30.02
ATOM	28	C	CYS A	22	-6.377	36.077	1.801 1.00 26.91
ATOM	29	O	CYS A	22	-5.154	35.976	1.717 1.00 26.74
ATOM	30	N	PRO A	23	-7.204	35.459	0.965 1.00 27.39
ATOM	31	CA	PRO A	23	-6.683	34.571	-0.080 1.00 27.48
ATOM	32	CB	PRO A	23	-7.934	33.853	-0.574 1.00 28.38
ATOM	33	CG	PRO A	23	-8.993	34.875	-0.368 1.00 30.20
ATOM	34	CD	PRO A	23	-8.674	35.517	0.952 1.00 27.17
ATOM	35	C	PRO A	23	-6.036	35.395	-1.185 1.00 27.85
ATOM	36	O	PRO A	23	-6.513	36.495	-1.487 1.00 28.68
ATOM	37	N	ILE A	24	-4.929	34.890	-1.723 1.00 25.89
ATOM	38	CA	ILE A	24	-4.148	35.595	-2.723 1.00 24.61
ATOM	39	CB	ILE A	24	-2.747	35.890	-2.154 1.00 25.01
ATOM	40	CG1	ILE A	24	-2.821	36.742	-0.873 1.00 23.94
ATOM	41	CD1	ILE A	24	-3.654	38.013	-1.033 1.00 28.76
ATOM	42	CG2	ILE A	24	-1.845	36.467	-3.229 1.00 24.43
ATOM	43	C	ILE A	24	-4.044	34.641	-3.898 1.00 24.73
ATOM	44	O	ILE A	24	-3.774	33.445	-3.719 1.00 24.14
ATOM	45	N	LYS A	25	-4.262	35.138	-5.112 1.00 23.63
ATOM	46	CA	LYS A	25	-4.158	34.245	-6.261 1.00 23.86
ATOM	47	CB	LYS A	25	-4.639	34.948	-7.538 1.00 25.41
ATOM	48	CG	LYS A	25	-6.138	35.188	-7.552 1.00 29.05
ATOM	49	CD	LYS A	25	-6.540	35.965	-8.799 1.00 35.15
ATOM	50	CE	LYS A	25	-8.054	36.059	-8.951 1.00 40.89
ATOM	51	NZ	LYS A	25	-8.390	36.581	-10.313 1.00 45.05

**FIGURE 253**

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ATOM	52	C	LYS	A	25	-2.688	33.885	-6.407	1.00	22.99
ATOM	53	O	LYS	A	25	-1.823	34.725	-6.195	1.00	23.91
ATOM	54	N	ILE	A	26	-2.374	32.643	-6.762	1.00	24.14
ATOM	55	CA	ILE	A	26	-0.961	32.283	-6.723	1.00	26.45
ATOM	56	CB	ILE	A	26	-0.718	30.774	-6.781	1.00	26.63
ATOM	57	CG1	ILE	A	26	-1.088	30.233	-8.158	1.00	25.40
ATOM	58	CD1	ILE	A	26	-0.405	28.926	-8.497	1.00	33.92
ATOM	59	CG2	ILE	A	26	-1.424	30.068	-5.616	1.00	25.53
ATOM	60	C	ILE	A	26	-0.148	33.072	-7.745	1.00	28.11
ATOM	61	O	ILE	A	26	1.003	33.402	-7.493	1.00	30.02
ATOM	62	N	ASN	A	27	-0.770	33.454	-8.855	1.00	30.78
ATOM	63	CA	ASN	A	27	-0.033	34.223	-9.862	1.00	35.08
ATOM	64	CB	ASN	A	27	-0.710	34.094	-11.236	1.00	34.95
ATOM	65	CG	ASN	A	27	-1.552	32.824	-11.347	1.00	40.82
ATOM	66	OD1	ASN	A	27	-1.093	31.822	-11.915	1.00	44.00
ATOM	67	ND2	ASN	A	27	-2.770	32.844	-10.778	1.00	42.15
ATOM	68	C	ASN	A	27	0.174	35.683	-9.455	1.00	34.87
ATOM	69	O	ASN	A	27	0.938	36.415	-10.098	1.00	38.32
ATOM	70	N	GLN	A	28	-0.491	36.100	-8.379	1.00	33.79
ATOM	71	CA	GLN	A	28	-0.283	37.411	-7.776	1.00	33.05
ATOM	72	CB	GLN	A	28	-1.633	38.093	-7.546	1.00	34.54
ATOM	73	CG	GLN	A	28	-2.004	39.014	-8.699	1.00	40.43
ATOM	74	CD	GLN	A	28	-3.422	38.827	-9.172	1.00	46.19
ATOM	75	OE1	GLN	A	28	-4.339	38.673	-8.362	1.00	49.62
ATOM	76	NE2	GLN	A	28	-3.612	38.845	-10.491	1.00	49.01
ATOM	77	C	GLN	A	28	0.520	37.409	-6.478	1.00	31.93
ATOM	78	O	GLN	A	28	0.823	38.469	-5.920	1.00	30.78
ATOM	79	N	PHE	A	29	0.863	36.216	-5.996	1.00	31.01
ATOM	80	CA	PHE	A	29	1.573	36.132	-4.720	1.00	29.71
ATOM	81	CB	PHE	A	29	1.805	34.688	-4.249	1.00	29.10
ATOM	82	CG	PHE	A	29	2.257	34.608	-2.809	1.00	25.53
ATOM	83	CD1	PHE	A	29	1.331	34.519	-1.790	1.00	25.89
ATOM	84	CE1	PHE	A	29	1.749	34.470	-0.465	1.00	25.38
ATOM	85	CZ	PHE	A	29	3.101	34.545	-0.156	1.00	23.03
ATOM	86	CE2	PHE	A	29	4.024	34.658	-1.171	1.00	22.38
ATOM	87	CD2	PHE	A	29	3.608	34.678	-2.481	1.00	22.17
ATOM	88	C	PHE	A	29	2.872	36.930	-4.662	1.00	31.08
ATOM	89	O	PHE	A	29	3.104	37.662	-3.690	1.00	30.41
ATOM	90	N	GLU	A	30	3.719	36.779	-5.680	1.00	30.60
ATOM	91	CA	GLU	A	30	5.044	37.388	-5.633	1.00	32.65
ATOM	92	CB	GLU	A	30	5.766	37.120	-6.953	1.00	33.47
ATOM	93	CG	GLU	A	30	7.107	37.828	-7.096	1.00	38.26
ATOM	94	CD	GLU	A	30	8.210	37.192	-6.273	1.00	41.01
ATOM	95	OE1	GLU	A	30	8.324	35.942	-6.263	1.00	41.31
ATOM	96	OE2	GLU	A	30	8.972	37.954	-5.638	1.00	43.55
ATOM	97	C	GLU	A	30	4.913	38.890	-5.391	1.00	32.57
ATOM	98	O	GLU	A	30	5.570	39.475	-4.523	1.00	31.57
ATOM	99	N	GLY	A	31	4.031	39.504	-6.171	1.00	34.44
ATOM	100	CA	GLY	A	31	3.688	40.905	-5.986	1.00	35.40
ATOM	101	C	GLY	A	31	2.984	41.274	-4.697	1.00	35.45
ATOM	102	O	GLY	A	31	3.285	42.311	-4.102	1.00	36.66
ATOM	103	N	HIS	A	32	2.040	40.449	-4.250	1.00	35.17

**FIGURE 254**

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ATOM	104	CA	HIS	A	32	1.406	40.666	-2.953	1.00	34.19
ATOM	105	CB	HIS	A	32	0.377	39.571	-2.650	1.00	33.45
ATOM	106	CG	HIS	A	32	-0.137	39.576	-1.239	1.00	35.35
ATOM	107	ND1	HIS	A	32	-1.005	40.533	-0.759	1.00	34.86
ATOM	108	CE1	HIS	A	32	-1.294	40.275	0.504	1.00	38.34
ATOM	109	NE2	HIS	A	32	-0.667	39.165	0.856	1.00	39.21
ATOM	110	CD2	HIS	A	32	0.072	38.714	-0.212	1.00	36.26
ATOM	111	C	HIS	A	32	2.471	40.749	-1.861	1.00	33.35
ATOM	112	O	HIS	A	32	2.461	41.663	-1.037	1.00	31.23
ATOM	113	N	PHE	A	33	3.409	39.806	-1.884	1.00	32.01
ATOM	114	CA	PHE	A	33	4.435	39.728	-0.852	1.00	31.66
ATOM	115	CB	PHE	A	33	5.168	38.384	-0.942	1.00	32.90
ATOM	116	CG	PHE	A	33	6.024	38.057	0.254	1.00	30.75
ATOM	117	CD1	PHE	A	33	5.708	38.529	1.524	1.00	34.33
ATOM	118	CE1	PHE	A	33	6.507	38.213	2.616	1.00	34.24
ATOM	119	CZ	PHE	A	33	7.643	37.424	2.450	1.00	35.46
ATOM	120	CE2	PHE	A	33	7.961	36.943	1.186	1.00	32.02
ATOM	121	CD2	PHE	A	33	7.145	37.255	0.106	1.00	27.29
ATOM	122	C	PHE	A	33	5.395	40.917	-0.953	1.00	31.91
ATOM	123	O	PHE	A	33	5.757	41.484	0.077	1.00	30.81
ATOM	124	N	MET	A	34	5.784	41.309	-2.170	1.00	31.13
ATOM	125	CA	MET	A	34	6.599	42.512	-2.328	1.00	34.10
ATOM	126	CB	MET	A	34	6.951	42.790	-3.797	1.00	33.71
ATOM	127	CG	MET	A	34	7.918	41.787	-4.410	1.00	36.64
ATOM	128	SD	MET	A	34	9.456	41.519	-3.504	1.00	45.35
ATOM	129	CE	MET	A	34	10.582	40.969	-4.820	1.00	46.02
ATOM	130	C	MET	A	34	5.903	43.709	-1.674	1.00	33.09
ATOM	131	O	MET	A	34	6.504	44.406	-0.866	1.00	34.24
ATOM	132	N	LYS	A	35	4.629	43.919	-1.996	1.00	35.14
ATOM	133	CA	LYS	A	35	3.835	44.999	-1.411	1.00	35.12
ATOM	134	CB	LYS	A	35	2.416	44.986	-1.990	1.00	36.58
ATOM	135	CG	LYS	A	35	2.372	45.164	-3.500	1.00	39.86
ATOM	136	CD	LYS	A	35	1.013	45.684	-3.944	1.00	44.78
ATOM	137	CE	LYS	A	35	1.181	46.751	-5.007	1.00	46.40
ATOM	138	NZ	LYS	A	35	1.355	46.127	-6.352	1.00	48.36
ATOM	139	C	LYS	A	35	3.808	44.960	0.122	1.00	35.83
ATOM	140	O	LYS	A	35	4.075	45.958	0.793	1.00	34.45
ATOM	141	N	LEU	A	36	3.505	43.799	0.695	1.00	34.49
ATOM	142	CA	LEU	A	36	3.546	43.658	2.144	1.00	33.34
ATOM	143	CB	LEU	A	36	3.238	42.218	2.534	1.00	33.70
ATOM	144	CG	LEU	A	36	1.800	41.748	2.349	1.00	34.08
ATOM	145	CD1	LEU	A	36	1.759	40.272	2.714	1.00	39.25
ATOM	146	CD2	LEU	A	36	0.827	42.549	3.202	1.00	35.36
ATOM	147	C	LEU	A	36	4.908	44.006	2.720	1.00	34.23
ATOM	148	O	LEU	A	36	5.017	44.469	3.855	1.00	32.77
ATOM	149	N	GLN	A	37	5.952	43.758	1.934	1.00	36.11
ATOM	150	CA	GLN	A	37	7.315	43.871	2.434	1.00	38.15
ATOM	151	CB	GLN	A	37	8.226	42.852	1.746	1.00	39.69
ATOM	152	CG	GLN	A	37	8.393	41.537	2.507	1.00	41.08
ATOM	153	CD	GLN	A	37	9.248	40.543	1.750	1.00	42.50
ATOM	154	OE1	GLN	A	37	10.228	40.029	2.281	1.00	46.33
ATOM	155	NE2	GLN	A	37	8.882	40.274	0.505	1.00	46.39

**FIGURE 255**

ATOM	156	C	GLN	A	37	7.888	45.280	2.283	1.00	39.26
ATOM	157	O	GLN	A	37	8.913	45.600	2.881	1.00	38.73
ATOM	158	N	ALA	A	38	7.219	46.099	1.481	1.00	39.85
ATOM	159	CA	ALA	A	38	7.634	47.480	1.237	1.00	41.68
ATOM	160	CB	ALA	A	38	6.717	48.129	0.200	1.00	40.33
ATOM	161	C	ALA	A	38	7.638	48.288	2.538	1.00	42.41
ATOM	162	O	ALA	A	38	7.000	47.898	3.515	1.00	42.66
ATOM	163	N	ASP	A	39	8.358	49.408	2.545	1.00	43.16
ATOM	164	CA	ASP	A	39	8.490	50.253	3.731	1.00	43.58
ATOM	165	CB	ASP	A	39	7.222	51.066	3.995	1.00	43.94
ATOM	166	CG	ASP	A	39	6.539	51.521	2.733	1.00	46.50
ATOM	167	OD1	ASP	A	39	5.474	52.165	2.853	1.00	53.13
ATOM	168	OD2	ASP	A	39	6.982	51.279	1.592	1.00	51.25
ATOM	169	C	ASP	A	39	8.782	49.487	5.011	1.00	43.69
ATOM	170	O	ASP	A	39	8.062	49.653	5.991	1.00	44.78
ATOM	171	N	SER	A	40	9.823	48.663	5.025	1.00	44.51
ATOM	172	CA	SER	A	40	10.177	47.964	6.256	1.00	44.47
ATOM	173	CB	SER	A	40	10.697	48.954	7.308	1.00	45.60
ATOM	174	OG	SER	A	40	11.858	49.640	6.852	1.00	45.70
ATOM	175	C	SER	A	40	8.934	47.224	6.770	1.00	44.23
ATOM	176	O	SER	A	40	8.450	47.477	7.879	1.00	43.64
ATOM	177	N	ASN	A	41	8.410	46.338	5.927	1.00	42.57
ATOM	178	CA	ASN	A	41	7.313	45.448	6.293	1.00	41.50
ATOM	179	CB	ASN	A	41	7.802	44.364	7.264	1.00	42.19
ATOM	180	CG	ASN	A	41	8.525	43.225	6.559	1.00	43.25
ATOM	181	OD1	ASN	A	41	8.753	43.268	5.350	1.00	47.07
ATOM	182	ND2	ASN	A	41	8.897	42.200	7.317	1.00	44.15
ATOM	183	C	ASN	A	41	6.051	46.146	6.805	1.00	40.97
ATOM	184	O	ASN	A	41	5.262	45.570	7.559	1.00	40.09
ATOM	185	N	TYR	A	42	5.842	47.383	6.370	1.00	39.82
ATOM	186	CA	TYR	A	42	4.723	48.184	6.859	1.00	40.35
ATOM	187	CB	TYR	A	42	4.655	49.528	6.125	1.00	41.74
ATOM	188	CG	TYR	A	42	3.461	50.359	6.527	1.00	45.15
ATOM	189	CD1	TYR	A	42	3.431	51.021	7.753	1.00	48.34
ATOM	190	CE1	TYR	A	42	2.333	51.778	8.137	1.00	51.74
ATOM	191	CZ	TYR	A	42	1.246	51.877	7.287	1.00	54.21
ATOM	192	OH	TYR	A	42	0.154	52.632	7.659	1.00	55.81
ATOM	193	CE2	TYR	A	42	1.250	51.227	6.065	1.00	52.92
ATOM	194	CD2	TYR	A	42	2.358	50.472	5.690	1.00	49.40
ATOM	195	C	TYR	A	42	3.369	47.472	6.809	1.00	38.41
ATOM	196	O	TYR	A	42	2.685	47.355	7.826	1.00	37.47
ATOM	197	N	LEU	A	43	2.985	46.978	5.635	1.00	37.22
ATOM	198	CA	LEU	A	43	1.667	46.380	5.480	1.00	34.65
ATOM	199	CB	LEU	A	43	1.205	46.392	4.021	1.00	36.77
ATOM	200	CG	LEU	A	43	0.731	47.739	3.455	1.00	34.94
ATOM	201	CD1	LEU	A	43	0.530	47.603	1.962	1.00	38.85
ATOM	202	CD2	LEU	A	43	-0.567	48.164	4.139	1.00	37.34
ATOM	203	C	LEU	A	43	1.660	44.953	6.016	1.00	34.58
ATOM	204	O	LEU	A	43	0.613	44.459	6.441	1.00	33.18
ATOM	205	N	LEU	A	44	2.812	44.290	5.972	1.00	32.70
ATOM	206	CA	LEU	A	44	2.917	42.976	6.606	1.00	32.37
ATOM	207	CB	LEU	A	44	4.316	42.376	6.458	1.00	32.08

FIGURE 256

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ATOM	208	CG	LEU	A	44	4.293	40.922	6.948	1.00	30.67
ATOM	209	CD1	LEU	A	44	4.884	39.953	5.934	1.00	35.30
ATOM	210	CD2	LEU	A	44	4.877	40.746	8.342	1.00	30.73
ATOM	211	C	LEU	A	44	2.574	43.078	8.092	1.00	33.04
ATOM	212	O	LEU	A	44	1.743	42.326	8.603	1.00	31.84
ATOM	213	N	SER	A	45	3.248	43.992	8.784	1.00	32.72
ATOM	214	CA	SER	A	45	3.023	44.200	10.211	1.00	32.14
ATOM	215	CB	SER	A	45	3.937	45.297	10.761	1.00	32.86
ATOM	216	OG	SER	A	45	5.298	44.946	10.616	1.00	33.52
ATOM	217	C	SER	A	45	1.579	44.543	10.543	1.00	31.96
ATOM	218	O	SER	A	45	1.063	44.085	11.562	1.00	31.93
ATOM	219	N	LYS	A	46	0.937	45.378	9.730	1.00	31.67
ATOM	220	CA	LYS	A	46	-0.452	45.743	9.983	1.00	32.52
ATOM	221	CB	LYS	A	46	-0.907	46.880	9.058	1.00	33.10
ATOM	222	CG	LYS	A	46	-0.320	48.247	9.408	1.00	37.46
ATOM	223	CD	LYS	A	46	-1.206	49.024	10.362	1.00	43.28
ATOM	224	CE	LYS	A	46	-0.660	48.938	11.785	1.00	46.45
ATOM	225	NZ	LYS	A	46	-1.645	48.309	12.714	1.00	43.98
ATOM	226	C	LYS	A	46	-1.361	44.534	9.819	1.00	31.81
ATOM	227	O	LYS	A	46	-2.279	44.313	10.608	1.00	33.52
ATOM	228	N	GLU	A	47	-1.108	43.735	8.788	1.00	30.77
ATOM	229	CA	GLU	A	47	-1.921	42.546	8.607	1.00	29.42
ATOM	230	CB	GLU	A	47	-1.527	41.852	7.317	1.00	29.31
ATOM	231	CG	GLU	A	47	-2.261	40.540	7.157	1.00	30.91
ATOM	232	CD	GLU	A	47	-2.032	39.991	5.770	1.00	33.04
ATOM	233	OE1	GLU	A	47	-2.462	40.656	4.790	1.00	31.27
ATOM	234	OE2	GLU	A	47	-1.387	38.923	5.697	1.00	30.22
ATOM	235	C	GLU	A	47	-1.745	41.573	9.764	1.00	27.29
ATOM	236	O	GLU	A	47	-2.729	41.065	10.317	1.00	28.88
ATOM	237	N	TYR	A	48	-0.488	41.316	10.110	1.00	27.52
ATOM	238	CA	TYR	A	48	-0.170	40.444	11.234	1.00	28.53
ATOM	239	CB	TYR	A	48	1.337	40.327	11.426	1.00	26.41
ATOM	240	CG	TYR	A	48	1.697	39.418	12.574	1.00	30.88
ATOM	241	CD1	TYR	A	48	1.508	38.039	12.489	1.00	27.50
ATOM	242	CE1	TYR	A	48	1.854	37.212	13.547	1.00	26.46
ATOM	243	CZ	TYR	A	48	2.341	37.759	14.713	1.00	31.48
ATOM	244	OH	TYR	A	48	2.683	36.975	15.797	1.00	33.16
ATOM	245	CE2	TYR	A	48	2.539	39.118	14.814	1.00	33.37
ATOM	246	CD2	TYR	A	48	2.198	39.937	13.760	1.00	31.15
ATOM	247	C	TYR	A	48	-0.807	40.876	12.555	1.00	30.00
ATOM	248	O	TYR	A	48	-1.212	40.047	13.374	1.00	29.71
ATOM	249	N	GLU	A	49	-0.867	42.179	12.800	1.00	29.94
ATOM	250	CA	GLU	A	49	-1.423	42.607	14.082	1.00	29.29
ATOM	251	CB	GLU	A	49	-0.863	43.970	14.510	1.00	31.83
ATOM	252	CG	GLU	A	49	0.648	43.941	14.759	1.00	34.43
ATOM	253	CD	GLU	A	49	1.103	43.090	15.942	1.00	41.82
ATOM	254	OE1	GLU	A	49	2.329	42.964	16.146	1.00	45.44
ATOM	255	OE2	GLU	A	49	0.267	42.555	16.705	1.00	49.14
ATOM	256	C	GLU	A	49	-2.948	42.494	14.156	1.00	28.43
ATOM	257	O	GLU	A	49	-3.519	42.445	15.243	1.00	28.47
ATOM	258	N	GLU	A	50	-3.597	42.362	13.002	1.00	26.77
ATOM	259	CA	GLU	A	50	-5.026	42.129	12.939	1.00	28.42

**FIGURE 257**

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ATOM	260	CB	GLU	A	50	-5.501	42.167	11.493	1.00	29.72
ATOM	261	CG	GLU	A	50	-5.695	43.555	10.902	1.00	37.08
ATOM	262	CD	GLU	A	50	-6.521	43.494	9.635	1.00	48.22
ATOM	263	OE1	GLU	A	50	-7.094	44.536	9.235	1.00	53.56
ATOM	264	OE2	GLU	A	50	-6.588	42.394	9.038	1.00	51.31
ATOM	265	C	GLU	A	50	-5.369	40.744	13.487	1.00	26.59
ATOM	266	O	GLU	A	50	-6.498	40.514	13.903	1.00	28.10
ATOM	267	N	LEU	A	51	-4.385	39.855	13.481	1.00	26.25
ATOM	268	CA	LEU	A	51	-4.561	38.486	13.994	1.00	23.60
ATOM	269	CB	LEU	A	51	-3.585	37.538	13.284	1.00	22.99
ATOM	270	CG	LEU	A	51	-3.829	37.234	11.798	1.00	22.34
ATOM	271	CD1	LEU	A	51	-2.549	36.611	11.228	1.00	18.21
ATOM	272	CD2	LEU	A	51	-5.087	36.385	11.612	1.00	24.13
ATOM	273	C	LEU	A	51	-4.370	38.363	15.509	1.00	24.96
ATOM	274	O	LEU	A	51	-4.677	37.326	16.111	1.00	22.08
ATOM	275	N	LYS	A	52	-3.855	39.417	16.144	1.00	26.20
ATOM	276	CA	LYS	A	52	-3.365	39.323	17.514	1.00	26.71
ATOM	277	CB	LYS	A	52	-2.860	40.693	17.980	1.00	26.43
ATOM	278	CG	LYS	A	52	-2.737	40.861	19.471	1.00	33.28
ATOM	279	CD	LYS	A	52	-2.346	42.297	19.849	1.00	36.15
ATOM	280	CE	LYS	A	52	-2.370	42.442	21.371	1.00	39.71
ATOM	281	NZ	LYS	A	52	-3.746	42.725	21.891	1.00	41.67
ATOM	282	C	LYS	A	52	-4.401	38.751	18.487	1.00	25.95
ATOM	283	O	LYS	A	52	-4.071	37.922	19.335	1.00	28.87
ATOM	284	N	ASP	A	53	-5.647	39.193	18.369	1.00	25.82
ATOM	285	CA	ASP	A	53	-6.665	38.840	19.352	1.00	27.69
ATOM	286	CB	ASP	A	53	-7.547	40.052	19.677	1.00	29.82
ATOM	287	CG	ASP	A	53	-6.811	41.109	20.492	1.00	35.24
ATOM	288	OD1	ASP	A	53	-7.138	42.300	20.303	1.00	41.07
ATOM	289	OD2	ASP	A	53	-5.893	40.851	21.306	1.00	38.05
ATOM	290	C	ASP	A	53	-7.569	37.670	18.980	1.00	25.40
ATOM	291	O	ASP	A	53	-8.525	37.364	19.698	1.00	26.92
ATOM	292	N	VAL	A	54	-7.297	37.026	17.853	1.00	21.25
ATOM	293	CA	VAL	A	54	-8.181	35.958	17.403	1.00	20.37
ATOM	294	CB	VAL	A	54	-7.674	35.400	16.059	1.00	20.28
ATOM	295	CG1	VAL	A	54	-8.452	34.176	15.627	1.00	20.13
ATOM	296	CG2	VAL	A	54	-7.640	36.526	14.988	1.00	20.70
ATOM	297	C	VAL	A	54	-8.155	34.888	18.496	1.00	21.34
ATOM	298	O	VAL	A	54	-7.068	34.539	18.969	1.00	21.56
ATOM	299	N	GLY	A	55	-9.345	34.408	18.857	1.00	19.73
ATOM	300	CA	GLY	A	55	-9.501	33.351	19.830	1.00	21.36
ATOM	301	C	GLY	A	55	-9.516	33.779	21.284	1.00	25.60
ATOM	302	O	GLY	A	55	-9.779	32.934	22.137	1.00	25.18
ATOM	303	N	ARG	A	56	-9.243	35.041	21.597	1.00	28.66
ATOM	304	CA	ARG	A	56	-8.825	35.351	22.967	1.00	33.28
ATOM	305	CB	ARG	A	56	-7.723	36.420	23.019	1.00	34.38
ATOM	306	CG	ARG	A	56	-6.566	36.172	22.048	1.00	38.44
ATOM	307	CD	ARG	A	56	-5.400	35.366	22.594	1.00	41.11
ATOM	308	NE	ARG	A	56	-4.139	35.991	22.211	1.00	47.68
ATOM	309	CZ	ARG	A	56	-3.441	36.808	22.989	1.00	51.01
ATOM	310	NH1	ARG	A	56	-3.880	37.097	24.206	1.00	50.37
ATOM	311	NH2	ARG	A	56	-2.308	37.346	22.551	1.00	48.68

**FIGURE 258**

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ATOM	312	C	ARG	A	56	-10.003	35.704	23.870	1.00	34.09
ATOM	313	O	ARG	A	56	-9.826	36.081	25.030	1.00	37.38
ATOM	314	N	ASN	A	57	-11.198	35.540	23.319	1.00	34.85
ATOM	315	CA	ASN	A	57	-12.448	35.609	24.046	1.00	34.43
ATOM	316	CB	ASN	A	57	-13.561	35.897	23.039	1.00	35.95
ATOM	317	CG	ASN	A	57	-13.661	34.836	21.944	1.00	40.08
ATOM	318	OD1	ASN	A	57	-12.748	34.655	21.124	1.00	42.89
ATOM	319	ND2	ASN	A	57	-14.799	34.144	21.912	1.00	40.39
ATOM	320	C	ASN	A	57	-12.760	34.309	24.799	1.00	31.67
ATOM	321	O	ASN	A	57	-13.767	34.232	25.487	1.00	33.78
ATOM	322	N	GLN	A	58	-11.920	33.286	24.653	1.00	27.75
ATOM	323	CA	GLN	A	58	-12.243	31.931	25.119	1.00	24.28
ATOM	324	CB	GLN	A	58	-11.843	30.903	24.058	1.00	23.90
ATOM	325	CG	GLN	A	58	-12.595	31.051	22.743	1.00	25.65
ATOM	326	CD	GLN	A	58	-12.102	30.074	21.714	1.00	26.89
ATOM	327	OE1	GLN	A	58	-10.971	30.202	21.238	1.00	28.76
ATOM	328	NE2	GLN	A	58	-12.933	29.084	21.381	1.00	28.16
ATOM	329	C	GLN	A	58	-11.584	31.583	26.458	1.00	23.11
ATOM	330	O	GLN	A	58	-10.450	32.001	26.725	1.00	21.96
ATOM	331	N	SER	A	59	-12.285	30.801	27.284	1.00	21.91
ATOM	332	CA	SER	A	59	-11.880	30.520	28.667	1.00	21.56
ATOM	333	CB	SER	A	59	-13.120	30.331	29.548	1.00	25.89
ATOM	334	OG	SER	A	59	-13.853	29.160	29.159	1.00	30.06
ATOM	335	C	SER	A	59	-10.966	29.293	28.744	1.00	20.75
ATOM	336	O	SER	A	59	-11.067	28.413	27.879	1.00	21.59
ATOM	337	N	CYS	A	60	-10.045	29.281	29.717	1.00	17.44
ATOM	338	CA	CYS	A	60	-9.241	28.110	30.066	1.00	16.53
ATOM	339	CB	CYS	A	60	-7.727	28.401	29.837	1.00	16.03
ATOM	340	SG	CYS	A	60	-7.335	28.999	28.191	1.00	20.55
ATOM	341	C	CYS	A	60	-9.464	27.783	31.540	1.00	15.89
ATOM	342	O	CYS	A	60	-8.518	27.605	32.301	1.00	16.90
ATOM	343	N	ASP	A	61	-10.724	27.666	31.948	1.00	16.95
ATOM	344	CA	ASP	A	61	-11.008	27.467	33.364	1.00	18.02
ATOM	345	CB	ASP	A	61	-12.496	27.660	33.610	1.00	19.47
ATOM	346	CG	ASP	A	61	-12.954	29.082	33.379	1.00	24.64
ATOM	347	OD1	ASP	A	61	-12.160	30.049	33.365	1.00	20.11
ATOM	348	OD2	ASP	A	61	-14.155	29.306	33.171	1.00	24.81
ATOM	349	C	ASP	A	61	-10.574	26.102	33.887	1.00	20.07
ATOM	350	O	ASP	A	61	-10.102	25.997	35.017	1.00	21.40
ATOM	351	N	ILE	A	62	-10.679	25.062	33.064	1.00	17.97
ATOM	352	CA	ILE	A	62	-10.298	23.747	33.574	1.00	16.98
ATOM	353	CB	ILE	A	62	-10.723	22.652	32.564	1.00	14.99
ATOM	354	CG1	ILE	A	62	-12.247	22.609	32.414	1.00	19.52
ATOM	355	CD1	ILE	A	62	-12.918	22.254	33.696	1.00	24.86
ATOM	356	CG2	ILE	A	62	-10.213	21.266	32.987	1.00	18.74
ATOM	357	C	ILE	A	62	-8.779	23.712	33.804	1.00	17.57
ATOM	358	O	ILE	A	62	-8.295	23.179	34.802	1.00	18.69
ATOM	359	N	ALA	A	63	-8.036	24.245	32.841	1.00	16.86
ATOM	360	CA	ALA	A	63	-6.570	24.285	32.923	1.00	18.52
ATOM	361	CB	ALA	A	63	-5.999	24.905	31.623	1.00	18.66
ATOM	362	C	ALA	A	63	-6.075	25.067	34.155	1.00	19.62
ATOM	363	O	ALA	A	63	-4.972	24.842	34.653	1.00	20.46

**FIGURE 259**

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ATOM	364	N	LEU	A	64	-6.919	25.972	34.632	1.00	20.64
ATOM	365	CA	LEU	A	64	-6.605	26.811	35.779	1.00	21.59
ATOM	366	CB	LEU	A	64	-7.316	28.157	35.640	1.00	21.74
ATOM	367	CG	LEU	A	64	-6.603	29.150	34.735	1.00	22.91
ATOM	368	CD1	LEU	A	64	-7.504	30.360	34.530	1.00	26.23
ATOM	369	CD2	LEU	A	64	-5.274	29.607	35.346	1.00	20.97
ATOM	370	C	LEU	A	64	-6.988	26.205	37.128	1.00	23.83
ATOM	371	O	LEU	A	64	-6.666	26.792	38.168	1.00	24.37
ATOM	372	N	LEU	A	65	-7.690	25.071	37.144	1.00	23.26
ATOM	373	CA	LEU	A	65	-8.009	24.427	38.418	1.00	25.30
ATOM	374	CB	LEU	A	65	-8.892	23.199	38.218	1.00	23.61
ATOM	375	CG	LEU	A	65	-10.281	23.423	37.623	1.00	25.74
ATOM	376	CD1	LEU	A	65	-10.875	22.077	37.228	1.00	27.81
ATOM	377	CD2	LEU	A	65	-11.154	24.183	38.616	1.00	27.81
ATOM	378	C	LEU	A	65	-6.739	24.069	39.184	1.00	25.22
ATOM	379	O	LEU	A	65	-5.741	23.654	38.606	1.00	23.18
ATOM	380	N	PRO	A	66	-6.716	24.280	40.498	1.00	26.80
ATOM	381	CA	PRO	A	66	-5.463	24.105	41.234	1.00	26.96
ATOM	382	CB	PRO	A	66	-5.830	24.483	42.678	1.00	28.00
ATOM	383	CG	PRO	A	66	-7.289	24.642	42.717	1.00	27.81
ATOM	384	CD	PRO	A	66	-7.827	24.762	41.333	1.00	29.27
ATOM	385	C	PRO	A	66	-4.917	22.683	41.121	1.00	27.13
ATOM	386	O	PRO	A	66	-3.697	22.517	41.088	1.00	25.29
ATOM	387	N	GLU	A	67	-5.819	21.707	41.019	1.00	27.81
ATOM	388	CA	GLU	A	67	-5.504	20.294	40.825	1.00	28.93
ATOM	389	CB	GLU	A	67	-6.818	19.510	40.733	1.00	30.51
ATOM	390	CG	AGLU	A	67	-6.790	18.040	41.147	0.50	32.82
ATOM	391	CG	BGLU	A	67	-7.575	19.363	42.052	0.50	29.81
ATOM	392	CD	AGLU	A	67	-5.497	17.580	41.804	0.50	34.06
ATOM	393	CD	BGLU	A	67	-8.575	20.471	42.362	0.50	32.38
ATOM	394	OE1AGLU	A	67	67	-5.465	17.473	43.049	0.50	33.59
ATOM	395	OE1BGLU	A	67	67	-8.580	21.554	41.729	0.50	28.29
ATOM	396	OE2AGLU	A	67	67	-4.523	17.281	41.077	0.50	37.14
ATOM	397	OE2BGLU	A	67	67	-9.376	20.260	43.298	0.50	33.73
ATOM	398	C	GLU	A	67	-4.681	20.052	39.557	1.00	28.81
ATOM	399	O	GLU	A	67	-3.896	19.100	39.474	1.00	28.70
ATOM	400	N	ASN	A	68	-4.841	20.938	38.577	1.00	27.24
ATOM	401	CA	ASN	A	68	-4.105	20.833	37.324	1.00	26.55
ATOM	402	CB	ASN	A	68	-5.043	21.171	36.157	1.00	23.97
ATOM	403	CG	ASN	A	68	-6.154	20.139	35.977	1.00	25.76
ATOM	404	OD1	ASN	A	68	-5.976	18.936	36.227	1.00	21.62
ATOM	405	ND2	ASN	A	68	-7.312	20.596	35.510	1.00	21.09
ATOM	406	C	ASN	A	68	-2.780	21.602	37.228	1.00	25.64
ATOM	407	O	ASN	A	68	-2.087	21.528	36.213	1.00	26.59
ATOM	408	N	ARG	A	69	-2.397	22.344	38.269	1.00	27.31
ATOM	409	CA	ARG	A	69	-1.330	23.336	38.101	1.00	26.13
ATOM	410	CB	ARG	A	69	-1.137	24.132	39.402	1.00	28.24
ATOM	411	CG	ARG	A	69	0.208	24.842	39.456	1.00	33.49
ATOM	412	CD	ARG	A	69	0.727	25.045	40.870	1.00	45.09
ATOM	413	NE	ARG	A	69	2.100	24.568	41.036	1.00	48.71
ATOM	414	CZ	ARG	A	69	3.132	25.001	40.319	1.00	51.40
ATOM	415	NH1	ARG	A	69	2.961	25.927	39.384	1.00	45.02

**FIGURE 260**



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ATOM	416	NH2	ARG	A	69	4.347	24.514	40.549	1.00	54.13
ATOM	417	C	ARG	A	69	0.003	22.714	37.665	1.00	26.18
ATOM	418	O	ARG	A	69	0.695	23.211	36.756	1.00	27.17
ATOM	419	N	GLY	A	70	0.319	21.578	38.279	1.00	24.09
ATOM	420	CA	GLY	A	70	1.568	20.888	37.993	1.00	22.34
ATOM	421	C	GLY	A	70	1.556	20.175	36.648	1.00	22.09
ATOM	422	O	GLY	A	70	2.579	19.634	36.252	1.00	22.14
ATOM	423	N	LYS	A	71	0.417	20.179	35.962	1.00	18.88
ATOM	424	CA	LYS	A	71	0.261	19.527	34.658	1.00	18.61
ATOM	425	CB	LYS	A	71	-1.192	19.057	34.499	1.00	18.52
ATOM	426	CG	LYS	A	71	-1.516	18.010	35.558	1.00	17.03
ATOM	427	CD	LYS	A	71	-2.862	17.421	35.371	1.00	16.16
ATOM	428	CE	LYS	A	71	-3.257	16.744	36.685	1.00	19.61
ATOM	429	NZ	LYS	A	71	-4.691	16.331	36.616	1.00	22.15
ATOM	430	C	LYS	A	71	0.589	20.487	33.527	1.00	18.47
ATOM	431	O	LYS	A	71	0.596	20.124	32.341	1.00	18.95
ATOM	432	N	ASN	A	72	0.790	21.743	33.885	1.00	18.67
ATOM	433	CA	ASN	A	72	1.126	22.757	32.879	1.00	19.34
ATOM	434	CB	ASN	A	72	0.245	23.977	33.056	1.00	18.51
ATOM	435	CG	ASN	A	72	-1.206	23.648	32.847	1.00	17.81
ATOM	436	OD1	ASN	A	72	-1.576	23.040	31.838	1.00	16.74
ATOM	437	ND2	ASN	A	72	-2.035	24.037	33.801	1.00	18.58
ATOM	438	C	ASN	A	72	2.591	23.158	32.922	1.00	18.69
ATOM	439	O	ASN	A	72	3.075	23.556	33.981	1.00	19.55
ATOM	440	N	ARG	A	73	3.298	22.983	31.806	1.00	19.19
ATOM	441	CA	ARG	A	73	4.706	23.394	31.736	1.00	18.17
ATOM	442	CB	ARG	A	73	5.277	23.098	30.351	1.00	18.40
ATOM	443	CG	ARG	A	73	6.735	23.539	30.185	1.00	16.99
ATOM	444	CD	ARG	A	73	7.388	23.053	28.874	1.00	16.70
ATOM	445	NE	ARG	A	73	7.620	21.604	28.934	1.00	16.40
ATOM	446	CZ	ARG	A	73	8.650	21.038	29.565	1.00	19.62
ATOM	447	NH1	ARG	A	73	9.534	21.783	30.213	1.00	21.72
ATOM	448	NH2	ARG	A	73	8.794	19.709	29.568	1.00	20.41
ATOM	449	C	ARG	A	73	4.811	24.891	31.984	1.00	19.99
ATOM	450	O	ARG	A	73	5.660	25.359	32.765	1.00	21.05
ATOM	451	N	TYR	A	74	3.961	25.633	31.292	1.00	18.61
ATOM	452	CA	TYR	A	74	3.919	27.081	31.449	1.00	18.09
ATOM	453	CB	TYR	A	74	4.190	27.726	30.102	1.00	16.79
ATOM	454	CG	TYR	A	74	5.560	27.365	29.541	1.00	16.34
ATOM	455	CD1	TYR	A	74	6.722	27.696	30.196	1.00	20.25
ATOM	456	CE1	TYR	A	74	7.971	27.371	29.649	1.00	21.10
ATOM	457	CZ	TYR	A	74	8.034	26.643	28.469	1.00	18.00
ATOM	458	OH	TYR	A	74	9.254	26.324	27.902	1.00	18.74
ATOM	459	CE2	TYR	A	74	6.879	26.318	27.803	1.00	20.42
ATOM	460	CD2	TYR	A	74	5.644	26.667	28.342	1.00	17.70
ATOM	461	C	TYR	A	74	2.539	27.463	31.946	1.00	20.00
ATOM	462	O	TYR	A	74	1.567	27.207	31.254	1.00	19.46
ATOM	463	N	ASN	A	75	2.442	28.052	33.138	1.00	19.96
ATOM	464	CA	ASN	A	75	1.125	28.228	33.729	1.00	18.71
ATOM	465	CB	ASN	A	75	1.218	28.665	35.186	1.00	19.98
ATOM	466	CG	ASN	A	75	1.531	27.534	36.144	1.00	28.50
ATOM	467	OD1	ASN	A	75	1.941	27.798	37.276	1.00	41.57

**FIGURE 261**

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ATOM	468	ND2	ASN	A	75	1.291	26.291	35.743	1.00	34.02
ATOM	469	C	ASN	A	75	0.300	29.254	32.975	1.00	19.22
ATOM	470	O	ASN	A	75	-0.933	29.328	33.123	1.00	19.65
ATOM	471	N	ASN	A	76	0.970	30.016	32.122	1.00	17.60
ATOM	472	CA	ASN	A	76	0.307	30.963	31.250	1.00	17.67
ATOM	473	CB	ASN	A	76	1.089	32.267	31.179	1.00	19.18
ATOM	474	CG	ASN	A	76	2.392	32.127	30.427	1.00	19.09
ATOM	475	OD1	ASN	A	76	3.099	31.147	30.602	1.00	19.41
ATOM	476	ND2	ASN	A	76	2.677	33.069	29.545	1.00	18.60
ATOM	477	C	ASN	A	76	-0.027	30.485	29.828	1.00	18.54
ATOM	478	O	ASN	A	76	-0.587	31.266	29.046	1.00	20.42
ATOM	479	N	ILE	A	77	0.332	29.243	29.499	1.00	17.75
ATOM	480	CA	ILE	A	77	0.023	28.679	28.175	1.00	16.98
ATOM	481	CB	ILE	A	77	1.267	28.284	27.363	1.00	17.92
ATOM	482	CG1	ILE	A	77	2.270	29.429	27.287	1.00	17.69
ATOM	483	CD1	ILE	A	77	1.825	30.580	26.477	1.00	24.18
ATOM	484	CG2	ILE	A	77	0.802	27.838	25.951	1.00	14.34
ATOM	485	C	ILE	A	77	-0.875	27.472	28.359	1.00	16.69
ATOM	486	O	ILE	A	77	-0.438	26.387	28.721	1.00	17.71
ATOM	487	N	LEU	A	78	-2.171	27.703	28.171	1.00	16.17
ATOM	488	CA	LEU	A	78	-3.177	26.760	28.614	1.00	15.63
ATOM	489	CB	LEU	A	78	-3.970	27.378	29.782	1.00	17.02
ATOM	490	CG	LEU	A	78	-3.103	27.826	30.952	1.00	14.20
ATOM	491	CD1	LEU	A	78	-3.971	28.492	32.013	1.00	18.34
ATOM	492	CD2	LEU	A	78	-2.351	26.592	31.530	1.00	15.97
ATOM	493	C	LEU	A	78	-4.116	26.521	27.448	1.00	16.27
ATOM	494	O	LEU	A	78	-4.338	27.415	26.640	1.00	16.45
ATOM	495	N	PRO	A	79	-4.676	25.319	27.365	1.00	15.77
ATOM	496	CA	PRO	A	79	-5.657	25.005	26.325	1.00	16.37
ATOM	497	CB	PRO	A	79	-5.825	23.494	26.465	1.00	15.52
ATOM	498	CG	PRO	A	79	-5.511	23.196	27.896	1.00	16.91
ATOM	499	CD	PRO	A	79	-4.409	24.186	28.269	1.00	16.37
ATOM	500	C	PRO	A	79	-7.001	25.658	26.657	1.00	15.83
ATOM	501	O	PRO	A	79	-7.397	25.687	27.824	1.00	16.64
ATOM	502	N	TYR	A	80	-7.668	26.191	25.639	1.00	17.68
ATOM	503	CA	TYR	A	80	-9.073	26.594	25.776	1.00	16.66
ATOM	504	CB	TYR	A	80	-9.571	27.131	24.426	1.00	17.47
ATOM	505	CG	TYR	A	80	-8.862	28.405	23.974	1.00	18.71
ATOM	506	CD1	TYR	A	80	-8.661	29.469	24.864	1.00	21.72
ATOM	507	CE1	TYR	A	80	-8.008	30.612	24.458	1.00	18.65
ATOM	508	CZ	TYR	A	80	-7.552	30.728	23.163	1.00	18.69
ATOM	509	OH	TYR	A	80	-6.951	31.901	22.794	1.00	19.69
ATOM	510	CE2	TYR	A	80	-7.730	29.709	22.252	1.00	19.15
ATOM	511	CD2	TYR	A	80	-8.363	28.532	22.676	1.00	18.51
ATOM	512	C	TYR	A	80	-9.944	25.419	26.190	1.00	17.71
ATOM	513	O	TYR	A	80	-9.835	24.326	25.641	1.00	18.31
ATOM	514	N	ASP	A	81	-10.884	25.656	27.098	1.00	17.08
ATOM	515	CA	ASP	A	81	-11.881	24.660	27.444	1.00	17.40
ATOM	516	CB	ASP	A	81	-12.929	25.314	28.332	1.00	18.47
ATOM	517	CG	ASP	A	81	-12.361	25.790	29.649	1.00	22.96
ATOM	518	OD1	ASP	A	81	-11.447	25.148	30.229	1.00	20.84
ATOM	519	OD2	ASP	A	81	-12.841	26.794	30.205	1.00	19.85

**FIGURE 262**

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Three Dimensional Coordinates of HPTPbeta

ATOM	520	C	ASP	A	81	-12.568	24.065	26.215	1.00	16.40
ATOM	521	O	ASP	A	81	-12.790	22.845	26.175	1.00	18.31
ATOM	522	N	ALA	A	82	-12.901	24.923	25.248	1.00	18.79
ATOM	523	CA	ALA	A	82	-13.714	24.544	24.096	1.00	21.05
ATOM	524	CB	ALA	A	82	-14.082	25.787	23.284	1.00	22.15
ATOM	525	C	ALA	A	82	-13.065	23.500	23.194	1.00	20.96
ATOM	526	O	ALA	A	82	-13.763	22.798	22.459	1.00	19.35
ATOM	527	N	THR	A	83	-11.730	23.441	23.203	1.00	18.07
ATOM	528	CA	THR	A	83	-11.029	22.560	22.274	1.00	20.13
ATOM	529	CB	THR	A	83	-10.260	23.375	21.204	1.00	21.39
ATOM	530	OG1	THR	A	83	-9.399	24.306	21.888	1.00	20.87
ATOM	531	CG2	THR	A	83	-11.215	24.257	20.373	1.00	22.64
ATOM	532	C	THR	A	83	-10.015	21.647	22.962	1.00	19.11
ATOM	533	O	THR	A	83	-9.241	21.027	22.255	1.00	18.63
ATOM	534	N	ARG	A	84	-10.008	21.543	24.292	1.00	16.72
ATOM	535	CA	ARG	A	84	-8.994	20.752	24.973	1.00	18.30
ATOM	536	CB	ARG	A	84	-8.977	21.025	26.481	1.00	20.17
ATOM	537	CG	ARG	A	84	-10.132	20.412	27.255	1.00	21.69
ATOM	538	CD	ARG	A	84	-10.152	20.875	28.716	1.00	21.07
ATOM	539	NE	ARG	A	84	-11.233	20.227	29.455	1.00	18.74
ATOM	540	CZ	ARG	A	84	-11.068	19.171	30.257	1.00	17.05
ATOM	541	NH1	ARG	A	84	-9.857	18.640	30.407	1.00	17.98
ATOM	542	NH2	ARG	A	84	-12.125	18.639	30.884	1.00	17.21
ATOM	543	C	ARG	A	84	-9.207	19.276	24.702	1.00	18.78
ATOM	544	O	ARG	A	84	-10.348	18.839	24.517	1.00	19.49
ATOM	545	N	VAL	A	85	-8.108	18.538	24.710	1.00	17.44
ATOM	546	CA	VAL	A	85	-8.130	17.081	24.614	1.00	17.40
ATOM	547	CB	VAL	A	85	-6.799	16.539	24.064	1.00	18.13
ATOM	548	CG1	VAL	A	85	-6.897	15.001	23.926	1.00	17.98
ATOM	549	CG2	VAL	A	85	-6.493	17.177	22.686	1.00	19.36
ATOM	550	C	VAL	A	85	-8.371	16.488	26.003	1.00	18.79
ATOM	551	O	VAL	A	85	-7.719	16.869	26.976	1.00	19.65
ATOM	552	N	LYS	A	86	-9.315	15.555	26.094	1.00	18.68
ATOM	553	CA	LYS	A	86	-9.613	14.946	27.396	1.00	17.68
ATOM	554	CB	LYS	A	86	-11.137	14.942	27.623	1.00	18.74
ATOM	555	CG	LYS	A	86	-11.672	16.355	27.728	1.00	22.75
ATOM	556	CD	LYS	A	86	-13.167	16.435	27.837	1.00	27.00
ATOM	557	CE	LYS	A	86	-13.540	17.906	27.691	1.00	30.36
ATOM	558	NZ	LYS	A	86	-14.942	18.132	27.228	1.00	34.08
ATOM	559	C	LYS	A	86	-9.118	13.517	27.445	1.00	19.75
ATOM	560	O	LYS	A	86	-9.357	12.766	26.489	1.00	22.00
ATOM	561	N	LEU	A	87	-8.443	13.188	28.544	1.00	19.49
ATOM	562	CA	LEU	A	87	-8.007	11.819	28.836	1.00	21.14
ATOM	563	CB	LEU	A	87	-6.883	11.849	29.871	1.00	20.71
ATOM	564	CG	LEU	A	87	-5.611	12.606	29.453	1.00	24.00
ATOM	565	CD1	LEU	A	87	-4.671	12.651	30.634	1.00	23.82
ATOM	566	CD2	LEU	A	87	-4.924	11.964	28.229	1.00	22.65
ATOM	567	C	LEU	A	87	-9.214	11.092	29.426	1.00	21.83
ATOM	568	O	LEU	A	87	-10.077	11.716	30.069	1.00	21.33
ATOM	569	N	SER	A	88	-9.278	9.777	29.239	1.00	22.50
ATOM	570	CA	SER	A	88	-10.267	9.015	30.030	1.00	27.20
ATOM	571	CB	SER	A	88	-10.199	7.517	29.746	1.00	26.15

**FIGURE 263**

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Three Dimensional Coordinates of HPTPbeta

ATOM	572	OG	SER	A	88	-8.930	6.992	30.099	1.00	27.44
ATOM	573	C	SER	A	88	-10.120	9.264	31.527	1.00	29.45
ATOM	574	O	SER	A	88	-9.021	9.477	32.035	1.00	28.78
ATOM	575	N	ASN	A	89	-11.244	9.263	32.234	1.00	33.66
ATOM	576	CA	ASN	A	89	-11.240	9.331	33.697	1.00	38.59
ATOM	577	CB	ASN	A	89	-12.675	9.420	34.228	1.00	40.00
ATOM	578	CG	ASN	A	89	-13.511	10.437	33.472	1.00	44.74
ATOM	579	OD1	ASN	A	89	-13.097	10.948	32.425	1.00	50.87
ATOM	580	ND2	ASN	A	89	-14.702	10.725	33.990	1.00	48.81
ATOM	581	C	ASN	A	89	-10.510	8.180	34.383	1.00	39.26
ATOM	582	O	ASN	A	89	-10.637	7.018	33.977	1.00	40.17
ATOM	583	N	VAL	A	90	-9.750	8.521	35.420	1.00	39.03
ATOM	584	CA	VAL	A	90	-9.059	7.551	36.267	1.00	39.07
ATOM	585	CB	VAL	A	90	-7.579	7.933	36.450	1.00	39.43
ATOM	586	CG1	VAL	A	90	-6.890	7.053	37.502	1.00	39.89
ATOM	587	CG2	VAL	A	90	-6.848	7.840	35.114	1.00	39.94
ATOM	588	C	VAL	A	90	-9.724	7.437	37.641	1.00	39.53
ATOM	589	O	VAL	A	90	-10.029	8.446	38.277	1.00	39.69
ATOM	590	N	CYS	A	95	-10.123	15.551	38.257	1.00	32.20
ATOM	591	CA	CYS	A	95	-9.274	16.239	37.274	1.00	31.56
ATOM	592	CB	CYS	A	95	-8.436	17.341	37.923	1.00	32.45
ATOM	593	SG	CYS	A	95	-9.470	18.646	38.623	1.00	39.21
ATOM	594	C	CYS	A	95	-8.351	15.296	36.529	1.00	29.09
ATOM	595	O	CYS	A	95	-7.399	15.760	35.888	1.00	28.47
ATOM	596	N	SER	A	96	-8.624	13.992	36.611	1.00	25.31
ATOM	597	CA	SER	A	96	-7.816	13.009	35.891	1.00	26.34
ATOM	598	CB	SER	A	96	-8.104	11.576	36.380	1.00	26.13
ATOM	599	OG	SER	A	96	-9.450	11.210	36.131	1.00	28.38
ATOM	600	C	SER	A	96	-7.857	13.149	34.365	1.00	24.83
ATOM	601	O	SER	A	96	-6.970	12.661	33.640	1.00	25.70
ATOM	602	N	ASP	A	97	-8.863	13.860	33.873	1.00	23.60
ATOM	603	CA	ASP	A	97	-9.022	14.004	32.432	1.00	23.00
ATOM	604	CB	ASP	A	97	-10.486	14.244	32.031	1.00	23.06
ATOM	605	CG	ASP	A	97	-10.939	15.704	32.178	1.00	25.86
ATOM	606	OD1	ASP	A	97	-10.131	16.559	32.575	1.00	23.58
ATOM	607	OD2	ASP	A	97	-12.113	16.073	31.926	1.00	27.66
ATOM	608	C	ASP	A	97	-8.085	15.005	31.779	1.00	20.67
ATOM	609	O	ASP	A	97	-8.055	15.123	30.548	1.00	21.87
ATOM	610	N	TYR	A	98	-7.333	15.746	32.581	1.00	19.60
ATOM	611	CA	TYR	A	98	-6.691	16.926	32.030	1.00	18.52
ATOM	612	CB	TYR	A	98	-6.520	18.003	33.104	1.00	18.03
ATOM	613	CG	TYR	A	98	-5.822	19.205	32.517	1.00	19.58
ATOM	614	CD1	TYR	A	98	-6.534	20.124	31.746	1.00	21.57
ATOM	615	CE1	TYR	A	98	-5.904	21.216	31.192	1.00	16.87
ATOM	616	CZ	TYR	A	98	-4.536	21.375	31.389	1.00	16.22
ATOM	617	OH	TYR	A	98	-3.906	22.447	30.797	1.00	18.85
ATOM	618	CE2	TYR	A	98	-3.803	20.475	32.138	1.00	17.86
ATOM	619	CD2	TYR	A	98	-4.445	19.385	32.694	1.00	19.81
ATOM	620	C	TYR	A	98	-5.338	16.650	31.410	1.00	16.72
ATOM	621	O	TYR	A	98	-4.485	16.025	32.040	1.00	19.70
ATOM	622	N	ILE	A	99	-5.137	17.179	30.199	1.00	15.99
ATOM	623	CA	ILE	A	99	-3.773	17.307	29.653	1.00	15.12

**FIGURE 264**

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Three Dimensional Coordinates of HPTPbeta

ATOM	624	CB	ILE	A	99	-3.485	16.142	28.679	1.00	16.27
ATOM	625	CG1	ILE	A	99	-2.013	16.171	28.227	1.00	13.41
ATOM	626	CD1	ILE	A	99	-1.501	14.952	27.413	1.00	15.15
ATOM	627	CG2	ILE	A	99	-4.516	16.099	27.536	1.00	18.41
ATOM	628	C	ILE	A	99	-3.730	18.654	28.924	1.00	14.61
ATOM	629	O	ILE	A	99	-4.754	19.134	28.452	1.00	14.64
ATOM	630	N	ASN	A	100	-2.549	19.246	28.845	1.00	13.96
ATOM	631	CA	ASN	A	100	-2.381	20.522	28.162	1.00	15.20
ATOM	632	CB	ASN	A	100	-1.218	21.330	28.763	1.00	15.09
ATOM	633	CG	ASN	A	100	-1.167	22.726	28.214	1.00	15.71
ATOM	634	OD1	ASN	A	100	-1.374	22.917	27.020	1.00	16.88
ATOM	635	ND2	ASN	A	100	-0.873	23.698	29.060	1.00	15.13
ATOM	636	C	ASN	A	100	-2.184	20.228	26.679	1.00	14.05
ATOM	637	O	ASN	A	100	-1.068	20.052	26.188	1.00	15.61
ATOM	638	N	ALA	A	101	-3.321	20.129	26.011	1.00	14.18
ATOM	639	CA	ALA	A	101	-3.342	19.806	24.587	1.00	14.86
ATOM	640	CB	ALA	A	101	-3.238	18.306	24.435	1.00	14.35
ATOM	641	C	ALA	A	101	-4.665	20.251	24.018	1.00	15.17
ATOM	642	O	ALA	A	101	-5.669	20.248	24.743	1.00	14.69
ATOM	643	N	SER	A	102	-4.679	20.523	22.708	1.00	15.50
ATOM	644	CA	SER	A	102	-5.810	21.159	22.047	1.00	15.05
ATOM	645	CB	SER	A	102	-5.471	22.629	21.759	1.00	15.31
ATOM	646	OG	SER	A	102	-5.151	23.291	22.969	1.00	15.76
ATOM	647	C	SER	A	102	-6.060	20.499	20.687	1.00	14.47
ATOM	648	O	SER	A	102	-5.122	20.253	19.962	1.00	16.41
ATOM	649	N	TYR	A	103	-7.315	20.273	20.310	1.00	14.11
ATOM	650	CA	TYR	A	103	-7.625	19.700	18.994	1.00	16.15
ATOM	651	CB	TYR	A	103	-9.064	19.128	18.983	1.00	15.58
ATOM	652	CG	TYR	A	103	-9.226	17.837	19.738	1.00	17.69
ATOM	653	CD1	TYR	A	103	-8.530	16.696	19.331	1.00	21.85
ATOM	654	CE1	TYR	A	103	-8.681	15.485	20.004	1.00	18.09
ATOM	655	CZ	TYR	A	103	-9.560	15.417	21.070	1.00	23.34
ATOM	656	OH	TYR	A	103	-9.763	14.235	21.749	1.00	25.07
ATOM	657	CE2	TYR	A	103	-10.281	16.527	21.482	1.00	22.71
ATOM	658	CD2	TYR	A	103	-10.123	17.724	20.808	1.00	19.56
ATOM	659	C	TYR	A	103	-7.606	20.816	17.968	1.00	17.25
ATOM	660	O	TYR	A	103	-8.067	21.930	18.244	1.00	18.82
ATOM	661	N	ILE	A	104	-7.125	20.470	16.779	1.00	16.96
ATOM	662	CA	ILE	A	104	-7.227	21.292	15.577	1.00	17.89
ATOM	663	CB	ILE	A	104	-5.810	21.550	15.040	1.00	18.29
ATOM	664	CG1	ILE	A	104	-4.887	21.993	16.154	1.00	19.03
ATOM	665	CD1	ILE	A	104	-5.247	23.333	16.819	1.00	21.70
ATOM	666	CG2	ILE	A	104	-5.845	22.465	13.784	1.00	22.08
ATOM	667	C	ILE	A	104	-8.013	20.483	14.547	1.00	20.87
ATOM	668	O	ILE	A	104	-7.582	19.407	14.121	1.00	20.90
ATOM	669	N	PRO	A	105	-9.188	20.966	14.154	1.00	21.39
ATOM	670	CA	PRO	A	105	-9.980	20.233	13.162	1.00	20.64
ATOM	671	CB	PRO	A	105	-11.348	20.918	13.214	1.00	21.14
ATOM	672	CG	PRO	A	105	-11.064	22.320	13.696	1.00	25.38
ATOM	673	CD	PRO	A	105	-9.836	22.219	14.596	1.00	22.10
ATOM	674	C	PRO	A	105	-9.346	20.426	11.786	1.00	20.86
ATOM	675	O	PRO	A	105	-8.621	21.420	11.579	1.00	22.00

**FIGURE 265**

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Three Dimensional Coordinates of HPTPbeta

ATOM	676	N	GLY	A	106	-9.603	19.487	10.872	1.00	20.78
ATOM	677	CA	GLY	A	106	-9.258	19.643	9.472	1.00	23.04
ATOM	678	C	GLY	A	106	-10.329	20.332	8.646	1.00	25.39
ATOM	679	O	GLY	A	106	-11.440	20.586	9.124	1.00	24.34
ATOM	680	N	ASN	A	107	-10.001	20.603	7.386	1.00	27.36
ATOM	681	CA	ASN	A	107	-10.986	21.163	6.458	1.00	29.29
ATOM	682	CB	ASN	A	107	-10.336	21.579	5.142	1.00	31.82
ATOM	683	CG	ASN	A	107	-9.436	22.795	5.291	1.00	34.51
ATOM	684	OD1	ASN	A	107	-8.306	22.792	4.798	1.00	43.42
ATOM	685	ND2	ASN	A	107	-9.917	23.824	5.984	1.00	40.29
ATOM	686	C	ASN	A	107	-12.080	20.168	6.153	1.00	28.84
ATOM	687	O	ASN	A	107	-13.182	20.560	5.772	1.00	29.29
ATOM	688	N	ASN	A	108	-11.776	18.881	6.300	1.00	27.42
ATOM	689	CA	ASN	A	108	-12.716	17.847	5.886	1.00	28.42
ATOM	690	CB	ASN	A	108	-12.020	16.861	4.947	1.00	29.82
ATOM	691	CG	ASN	A	108	-11.769	17.438	3.570	1.00	33.34
ATOM	692	OD1	ASN	A	108	-10.623	17.630	3.158	1.00	39.32
ATOM	693	ND2	ASN	A	108	-12.846	17.710	2.843	1.00	37.81
ATOM	694	C	ASN	A	108	-13.325	17.065	7.052	1.00	27.69
ATOM	695	O	ASN	A	108	-14.371	16.440	6.895	1.00	28.98
ATOM	696	N	PHE	A	109	-12.665	17.078	8.206	1.00	24.03
ATOM	697	CA	PHE	A	109	-13.114	16.259	9.339	1.00	21.78
ATOM	698	CB	PHE	A	109	-12.718	14.795	9.081	1.00	20.51
ATOM	699	CG	PHE	A	109	-13.564	13.780	9.830	1.00	21.38
ATOM	700	CD1	PHE	A	109	-13.061	13.110	10.936	1.00	21.50
ATOM	701	CE1	PHE	A	109	-13.823	12.180	11.626	1.00	24.12
ATOM	702	CZ	PHE	A	109	-15.129	11.909	11.208	1.00	25.45
ATOM	703	CE2	PHE	A	109	-15.641	12.561	10.113	1.00	21.35
ATOM	704	CD2	PHE	A	109	-14.866	13.493	9.421	1.00	18.54
ATOM	705	C	PHE	A	109	-12.452	16.764	10.612	1.00	22.13
ATOM	706	O	PHE	A	109	-11.412	17.437	10.545	1.00	21.08
ATOM	707	N	ARG	A	110	-13.013	16.358	11.752	1.00	19.50
ATOM	708	CA	ARG	A	110	-12.523	16.785	13.054	1.00	21.56
ATOM	709	CB	ARG	A	110	-13.472	16.347	14.168	1.00	22.46
ATOM	710	CG	ARG	A	110	-13.476	14.851	14.413	1.00	24.80
ATOM	711	CD	ARG	A	110	-14.802	14.225	14.822	1.00	32.72
ATOM	712	NE	ARG	A	110	-15.236	14.643	16.150	1.00	39.42
ATOM	713	CZ	ARG	A	110	-15.044	13.914	17.243	1.00	43.17
ATOM	714	NH1	ARG	A	110	-14.400	12.750	17.162	1.00	42.56
ATOM	715	NH2	ARG	A	110	-15.474	14.358	18.418	1.00	43.79
ATOM	716	C	ARG	A	110	-11.118	16.239	13.310	1.00	20.39
ATOM	717	O	ARG	A	110	-10.729	15.220	12.746	1.00	21.44
ATOM	718	N	ARG	A	111	-10.436	16.843	14.273	1.00	20.63
ATOM	719	CA	ARG	A	111	-9.259	16.240	14.885	1.00	21.26
ATOM	720	CB	ARG	A	111	-9.651	15.008	15.728	1.00	20.41
ATOM	721	CG	ARG	A	111	-10.650	15.324	16.827	1.00	21.47
ATOM	722	CD	ARG	A	111	-10.936	14.151	17.754	1.00	21.72
ATOM	723	NE	ARG	A	111	-11.920	14.585	18.729	1.00	22.21
ATOM	724	CZ	ARG	A	111	-12.269	13.928	19.825	1.00	27.64
ATOM	725	NH1	ARG	A	111	-11.713	12.759	20.119	1.00	30.92
ATOM	726	NH2	ARG	A	111	-13.175	14.456	20.633	1.00	26.56
ATOM	727	C	ARG	A	111	-8.161	15.872	13.914	1.00	20.16

**FIGURE 266**

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Three Dimensional Coordinates of HPTPbeta

ATOM	728	O	ARG	A	111	-7.612	14.761	13.972	1.00	21.20
ATOM	729	N	GLU	A	112	-7.777	16.801	13.043	1.00	18.71
ATOM	730	CA	GLU	A	112	-6.651	16.499	12.179	1.00	17.48
ATOM	731	CB	GLU	A	112	-6.632	17.426	10.954	1.00	18.75
ATOM	732	CG	GLU	A	112	-5.441	17.169	10.049	1.00	16.97
ATOM	733	CD	GLU	A	112	-5.437	18.043	8.809	1.00	27.96
ATOM	734	OE1	GLU	A	112	-4.889	17.541	7.805	1.00	25.67
ATOM	735	OE2	GLU	A	112	-5.919	19.209	8.860	1.00	25.41
ATOM	736	C	GLU	A	112	-5.307	16.580	12.906	1.00	16.93
ATOM	737	O	GLU	A	112	-4.421	15.771	12.615	1.00	17.02
ATOM	738	N	TYR	A	113	-5.168	17.526	13.834	1.00	16.48
ATOM	739	CA	TYR	A	113	-3.964	17.632	14.673	1.00	17.06
ATOM	740	CB	TYR	A	113	-3.168	18.898	14.387	1.00	15.83
ATOM	741	CG	TYR	A	113	-2.779	19.127	12.955	1.00	18.99
ATOM	742	CD1	TYR	A	113	-3.606	19.884	12.148	1.00	22.98
ATOM	743	CE1	TYR	A	113	-3.290	20.157	10.850	1.00	24.83
ATOM	744	CZ	TYR	A	113	-2.089	19.709	10.356	1.00	22.77
ATOM	745	OH	TYR	A	113	-1.838	20.017	9.035	1.00	28.70
ATOM	746	CE2	TYR	A	113	-1.233	18.945	11.118	1.00	22.82
ATOM	747	CD2	TYR	A	113	-1.570	18.678	12.457	1.00	24.11
ATOM	748	C	TYR	A	113	-4.327	17.701	16.163	1.00	14.55
ATOM	749	O	TYR	A	113	-5.445	18.039	16.533	1.00	16.23
ATOM	750	N	ILE	A	114	-3.439	17.251	17.029	1.00	13.11
ATOM	751	CA	ILE	A	114	-3.500	17.610	18.439	1.00	13.46
ATOM	752	CB	ILE	A	114	-3.501	16.340	19.331	1.00	13.02
ATOM	753	CG1	ILE	A	114	-4.859	15.643	19.231	1.00	15.50
ATOM	754	CD1	ILE	A	114	-4.796	14.175	19.736	1.00	17.84
ATOM	755	CG2	ILE	A	114	-3.233	16.721	20.803	1.00	15.76
ATOM	756	C	ILE	A	114	-2.239	18.421	18.708	1.00	15.12
ATOM	757	O	ILE	A	114	-1.146	17.951	18.448	1.00	16.55
ATOM	758	N	VAL	A	115	-2.407	19.636	19.215	1.00	15.68
ATOM	759	CA	VAL	A	115	-1.262	20.440	19.619	1.00	14.96
ATOM	760	CB	VAL	A	115	-1.499	21.899	19.277	1.00	15.98
ATOM	761	CG1	VAL	A	115	-0.446	22.789	19.895	1.00	18.83
ATOM	762	CG2	VAL	A	115	-1.501	22.011	17.767	1.00	19.14
ATOM	763	C	VAL	A	115	-1.078	20.282	21.114	1.00	15.79
ATOM	764	O	VAL	A	115	-2.039	20.346	21.880	1.00	15.38
ATOM	765	N	THR	A	116	0.163	20.062	21.541	1.00	14.14
ATOM	766	CA	THR	A	116	0.399	19.938	22.966	1.00	15.23
ATOM	767	CB	THR	A	116	0.267	18.421	23.362	1.00	15.94
ATOM	768	OG1	THR	A	116	0.282	18.318	24.792	1.00	16.48
ATOM	769	CG2	THR	A	116	1.492	17.619	22.906	1.00	20.42
ATOM	770	C	THR	A	116	1.737	20.589	23.403	1.00	14.47
ATOM	771	O	THR	A	116	2.563	20.939	22.583	1.00	17.79
ATOM	772	N	GLN	A	117	1.924	20.762	24.706	1.00	16.11
ATOM	773	CA	GLN	A	117	3.181	21.248	25.251	1.00	15.39
ATOM	774	CB	GLN	A	117	2.975	21.710	26.716	1.00	14.51
ATOM	775	CG	GLN	A	117	2.597	20.569	27.659	1.00	15.32
ATOM	776	CD	GLN	A	117	2.327	21.017	29.072	1.00	16.29
ATOM	777	OE1	GLN	A	117	2.162	22.202	29.329	1.00	17.89
ATOM	778	NE2	GLN	A	117	2.265	20.073	29.987	1.00	15.78
ATOM	779	C	GLN	A	117	4.208	20.143	25.228	1.00	16.18

**FIGURE 267**

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ATOM	780	O	GLN	A	117	3.895	18.970	25.110	1.00	16.55
ATOM	781	N	GLY	A	118	5.469	20.517	25.375	1.00	16.92
ATOM	782	CA	GLY	A	118	6.470	19.495	25.606	1.00	16.65
ATOM	783	C	GLY	A	118	6.186	18.761	26.901	1.00	15.21
ATOM	784	O	GLY	A	118	6.087	19.352	27.989	1.00	16.22
ATOM	785	N	PRO	A	119	6.035	17.445	26.822	1.00	15.88
ATOM	786	CA	PRO	A	119	5.791	16.689	28.055	1.00	15.90
ATOM	787	CB	PRO	A	119	5.878	15.243	27.582	1.00	17.35
ATOM	788	CG	PRO	A	119	5.520	15.281	26.147	1.00	16.27
ATOM	789	CD	PRO	A	119	6.092	16.575	25.628	1.00	16.39
ATOM	790	C	PRO	A	119	6.768	16.949	29.213	1.00	17.04
ATOM	791	O	PRO	A	119	7.972	17.127	28.997	1.00	17.25
ATOM	792	N	LEU	A	120	6.230	16.986	30.427	1.00	20.34
ATOM	793	CA	LEU	A	120	7.006	17.119	31.660	1.00	20.38
ATOM	794	CB	LEU	A	120	6.171	17.875	32.683	1.00	20.80
ATOM	795	CG	LEU	A	120	5.899	19.355	32.400	1.00	20.40
ATOM	796	CD1	LEU	A	120	4.670	19.772	33.207	1.00	20.65
ATOM	797	CD2	LEU	A	120	7.087	20.257	32.655	1.00	22.46
ATOM	798	C	LEU	A	120	7.324	15.718	32.190	1.00	22.07
ATOM	799	O	LEU	A	120	6.642	14.762	31.824	1.00	19.88
ATOM	800	N	PRO	A	121	8.343	15.566	33.032	1.00	22.56
ATOM	801	CA	PRO	A	121	8.590	14.265	33.676	1.00	22.53
ATOM	802	CB	PRO	A	121	9.586	14.599	34.790	1.00	22.51
ATOM	803	CG	PRO	A	121	10.302	15.799	34.270	1.00	24.46
ATOM	804	CD	PRO	A	121	9.302	16.594	33.481	1.00	23.40
ATOM	805	C	PRO	A	121	7.295	13.766	34.308	1.00	20.90
ATOM	806	O	PRO	A	121	7.019	12.575	34.178	1.00	22.13
ATOM	807	N	GLY	A	122	6.529	14.643	34.946	1.00	18.52
ATOM	808	CA	GLY	A	122	5.267	14.247	35.555	1.00	19.71
ATOM	809	C	GLY	A	122	4.050	14.113	34.658	1.00	19.48
ATOM	810	O	GLY	A	122	3.008	13.713	35.158	1.00	20.10
ATOM	811	N	THR	A	123	4.152	14.463	33.376	1.00	19.70
ATOM	812	CA	THR	A	123	3.013	14.300	32.467	1.00	20.05
ATOM	813	CB	THR	A	123	2.470	15.643	31.910	1.00	19.02
ATOM	814	OG1	THR	A	123	3.417	16.229	31.006	1.00	17.75
ATOM	815	CG2	THR	A	123	2.286	16.724	33.011	1.00	21.52
ATOM	816	C	THR	A	123	3.305	13.389	31.279	1.00	18.26
ATOM	817	O	THR	A	123	2.428	13.238	30.410	1.00	19.28
ATOM	818	N	LYS	A	124	4.498	12.810	31.219	1.00	18.95
ATOM	819	CA	LYS	A	124	4.788	11.956	30.057	1.00	18.96
ATOM	820	CB	LYS	A	124	6.283	11.641	29.950	1.00	20.13
ATOM	821	CG	LYS	A	124	6.834	10.806	31.086	1.00	23.04
ATOM	822	CD	LYS	A	124	8.336	10.603	30.898	1.00	29.73
ATOM	823	CE	LYS	A	124	8.775	9.445	31.787	1.00	36.02
ATOM	824	NZ	LYS	A	124	10.152	9.706	32.286	1.00	43.04
ATOM	825	C	LYS	A	124	3.876	10.734	29.956	1.00	19.08
ATOM	826	O	LYS	A	124	3.538	10.312	28.855	1.00	17.17
ATOM	827	N	ASP	A	125	3.454	10.156	31.086	1.00	18.94
ATOM	828	CA	ASP	A	125	2.497	9.066	31.016	1.00	19.18
ATOM	829	CB	ASP	A	125	2.272	8.426	32.390	1.00	20.53
ATOM	830	CG	ASP	A	125	3.531	7.858	32.991	1.00	22.30
ATOM	831	OD1	ASP	A	125	4.545	7.684	32.280	1.00	23.89

**FIGURE 268**



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ATOM	832	OD2	ASP	A	125	3.577	7.580	34.216	1.00	25.30
ATOM	833	C	ASP	A	125	1.160	9.570	30.460	1.00	18.40
ATOM	834	O	ASP	A	125	0.519	8.877	29.670	1.00	19.13
ATOM	835	N	ASP	A	126	0.760	10.773	30.871	1.00	17.97
ATOM	836	CA	ASP	A	126	-0.453	11.402	30.351	1.00	17.81
ATOM	837	CB	ASP	A	126	-0.632	12.804	30.951	1.00	18.50
ATOM	838	CG	ASP	A	126	-0.832	12.813	32.447	1.00	24.65
ATOM	839	OD1	ASP	A	126	-1.196	11.774	33.046	1.00	22.46
ATOM	840	OD2	ASP	A	126	-0.670	13.887	33.085	1.00	24.22
ATOM	841	C	ASP	A	126	-0.314	11.606	28.837	1.00	16.85
ATOM	842	O	ASP	A	126	-1.256	11.407	28.082	1.00	16.48
ATOM	843	N	PHE	A	127	0.868	12.008	28.380	1.00	17.92
ATOM	844	CA	PHE	A	127	1.068	12.282	26.958	1.00	16.02
ATOM	845	CB	PHE	A	127	2.459	12.901	26.744	1.00	15.67
ATOM	846	CG	PHE	A	127	2.886	12.934	25.300	1.00	15.63
ATOM	847	CD1	PHE	A	127	2.614	14.040	24.513	1.00	15.34
ATOM	848	CE1	PHE	A	127	3.015	14.065	23.170	1.00	18.23
ATOM	849	CZ	PHE	A	127	3.682	12.972	22.603	1.00	17.60
ATOM	850	CE2	PHE	A	127	3.902	11.819	23.398	1.00	14.91
ATOM	851	CD2	PHE	A	127	3.540	11.826	24.721	1.00	15.74
ATOM	852	C	PHE	A	127	0.913	10.967	26.199	1.00	15.37
ATOM	853	O	PHE	A	127	0.234	10.922	25.167	1.00	15.38
ATOM	854	N	TRP	A	128	1.486	9.880	26.710	1.00	15.77
ATOM	855	CA	TRP	A	128	1.412	8.643	25.951	1.00	15.30
ATOM	856	CB	TRP	A	128	2.416	7.618	26.452	1.00	14.62
ATOM	857	CG	TRP	A	128	3.800	7.961	26.004	1.00	15.64
ATOM	858	CD1	TRP	A	128	4.848	8.266	26.796	1.00	16.32
ATOM	859	NE1	TRP	A	128	5.978	8.498	26.047	1.00	16.04
ATOM	860	CE2	TRP	A	128	5.658	8.340	24.721	1.00	17.00
ATOM	861	CD2	TRP	A	128	4.275	8.037	24.656	1.00	14.14
ATOM	862	CE3	TRP	A	128	3.697	7.798	23.401	1.00	18.83
ATOM	863	CZ3	TRP	A	128	4.481	7.947	22.261	1.00	19.71
ATOM	864	CH2	TRP	A	128	5.855	8.288	22.362	1.00	18.66
ATOM	865	CZ2	TRP	A	128	6.446	8.494	23.583	1.00	17.54
ATOM	866	C	TRP	A	128	0.000	8.071	25.981	1.00	14.42
ATOM	867	O	TRP	A	128	-0.410	7.416	25.021	1.00	15.80
ATOM	868	N	LYS	A	129	-0.671	8.219	27.123	1.00	16.32
ATOM	869	CA	LYS	A	129	-2.091	7.905	27.214	1.00	15.35
ATOM	870	CB	LYS	A	129	-2.642	8.310	28.588	1.00	18.04
ATOM	871	CG	LYS	A	129	-4.131	7.953	28.762	1.00	16.84
ATOM	872	CD	LYS	A	129	-4.549	8.066	30.229	1.00	19.80
ATOM	873	CE	LYS	A	129	-6.064	8.051	30.343	1.00	21.91
ATOM	874	NZ	LYS	A	129	-6.439	8.260	31.807	1.00	25.23
ATOM	875	C	LYS	A	129	-2.861	8.607	26.121	1.00	16.69
ATOM	876	O	LYS	A	129	-3.713	8.011	25.465	1.00	16.75
ATOM	877	N	MET	A	130	-2.618	9.909	25.990	1.00	15.72
ATOM	878	CA	MET	A	130	-3.311	10.652	24.957	1.00	16.87
ATOM	879	CB	MET	A	130	-3.026	12.145	25.080	1.00	14.45
ATOM	880	CG	MET	A	130	-3.608	12.865	23.908	1.00	15.57
ATOM	881	SD	MET	A	130	-3.131	14.614	23.936	1.00	17.91
ATOM	882	CE	MET	A	130	-1.383	14.608	23.583	1.00	16.03
ATOM	883	C	MET	A	130	-3.040	10.117	23.548	1.00	16.34

**FIGURE 269**

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ATOM	884	O	MET	A	130	-3.965	9.899	22.759	1.00	16.31
ATOM	885	N	VAL	A	131	-1.783	9.837	23.226	1.00	15.65
ATOM	886	CA	VAL	A	131	-1.402	9.283	21.924	1.00	13.92
ATOM	887	CB	VAL	A	131	0.120	9.049	21.956	1.00	14.34
ATOM	888	CG1	VAL	A	131	0.588	8.212	20.797	1.00	18.45
ATOM	889	CG2	VAL	A	131	0.877	10.386	21.984	1.00	18.04
ATOM	890	C	VAL	A	131	-2.107	7.948	21.681	1.00	14.86
ATOM	891	O	VAL	A	131	-2.609	7.668	20.579	1.00	15.81
ATOM	892	N	TRP	A	132	-2.209	7.145	22.732	1.00	14.88
ATOM	893	CA	TRP	A	132	-2.840	5.840	22.599	1.00	14.40
ATOM	894	CB	TRP	A	132	-2.599	4.996	23.861	1.00	14.68
ATOM	895	CG	TRP	A	132	-3.301	3.666	23.747	1.00	16.82
ATOM	896	CD1	TRP	A	132	-4.427	3.273	24.402	1.00	17.83
ATOM	897	NE1	TRP	A	132	-4.799	2.015	23.980	1.00	16.10
ATOM	898	CE2	TRP	A	132	-3.901	1.566	23.049	1.00	19.18
ATOM	899	CD2	TRP	A	132	-2.956	2.591	22.852	1.00	18.23
ATOM	900	CE3	TRP	A	132	-1.924	2.388	21.930	1.00	16.64
ATOM	901	CZ3	TRP	A	132	-1.857	1.165	21.233	1.00	18.77
ATOM	902	CH2	TRP	A	132	-2.841	0.177	21.450	1.00	19.47
ATOM	903	CZ2	TRP	A	132	-3.857	0.358	22.350	1.00	18.87
ATOM	904	C	TRP	A	132	-4.346	6.021	22.375	1.00	14.57
ATOM	905	O	TRP	A	132	-4.901	5.489	21.423	1.00	14.81
ATOM	906	N	GLU	A	133	-4.977	6.784	23.257	1.00	17.42
ATOM	907	CA	GLU	A	133	-6.450	6.895	23.277	1.00	15.50
ATOM	908	CB	GLU	A	133	-6.924	7.614	24.526	1.00	15.78
ATOM	909	CG	GLU	A	133	-6.669	6.814	25.790	1.00	17.18
ATOM	910	CD	GLU	A	133	-7.390	7.374	26.988	1.00	25.51
ATOM	911	OE1	GLU	A	133	-7.721	8.585	26.977	1.00	22.92
ATOM	912	OE2	GLU	A	133	-7.539	6.592	27.957	1.00	21.86
ATOM	913	C	GLU	A	133	-6.990	7.595	22.041	1.00	17.24
ATOM	914	O	GLU	A	133	-8.144	7.335	21.609	1.00	16.93
ATOM	915	N	GLN	A	134	-6.188	8.513	21.501	1.00	16.12
ATOM	916	CA	GLN	A	134	-6.583	9.284	20.326	1.00	16.01
ATOM	917	CB	GLN	A	134	-6.136	10.746	20.432	1.00	15.45
ATOM	918	CG	GLN	A	134	-6.658	11.461	21.657	1.00	16.97
ATOM	919	CD	GLN	A	134	-8.141	11.671	21.576	1.00	21.63
ATOM	920	OE1	GLN	A	134	-8.649	12.128	20.548	1.00	30.42
ATOM	921	NE2	GLN	A	134	-8.855	11.298	22.636	1.00	24.38
ATOM	922	C	GLN	A	134	-6.211	8.681	18.987	1.00	16.29
ATOM	923	O	GLN	A	134	-6.418	9.300	17.936	1.00	17.57
ATOM	924	N	ASN	A	135	-5.721	7.438	19.007	1.00	16.26
ATOM	925	CA	ASN	A	135	-5.338	6.741	17.788	1.00	16.42
ATOM	926	CB	ASN	A	135	-6.562	6.516	16.901	1.00	18.03
ATOM	927	CG	ASN	A	135	-7.602	5.656	17.580	1.00	22.43
ATOM	928	OD1	ASN	A	135	-7.358	4.475	17.849	1.00	28.78
ATOM	929	ND2	ASN	A	135	-8.757	6.232	17.865	1.00	27.37
ATOM	930	C	ASN	A	135	-4.243	7.426	16.964	1.00	18.21
ATOM	931	O	ASN	A	135	-4.199	7.287	15.749	1.00	17.34
ATOM	932	N	VAL	A	136	-3.380	8.164	17.651	1.00	18.13
ATOM	933	CA	VAL	A	136	-2.276	8.873	17.011	1.00	16.80
ATOM	934	CB	VAL	A	136	-1.664	9.866	18.023	1.00	18.00
ATOM	935	CG1	VAL	A	136	-0.351	10.461	17.482	1.00	16.01

**FIGURE 270**

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ATOM	936	CG2	VAL	A	136	-2.680	10.930	18.399	1.00	18.19
ATOM	937	C	VAL	A	136	-1.229	7.880	16.483	1.00	18.93
ATOM	938	O	VAL	A	136	-0.821	6.977	17.211	1.00	19.57
ATOM	939	N	HIS	A	137	-0.860	8.013	15.202	1.00	17.50
ATOM	940	CA	HIS	A	137	0.264	7.277	14.623	1.00	16.22
ATOM	941	CB	HIS	A	137	-0.110	6.473	13.360	1.00	18.79
ATOM	942	CG	HIS	A	137	-1.152	5.414	13.571	1.00	19.38
ATOM	943	ND1	HIS	A	137	-2.419	5.691	14.034	1.00	20.18
ATOM	944	CE1	HIS	A	137	-3.116	4.572	14.115	1.00	22.60
ATOM	945	NE2	HIS	A	137	-2.358	3.579	13.680	1.00	22.19
ATOM	946	CD2	HIS	A	137	-1.121	4.078	13.344	1.00	20.32
ATOM	947	C	HIS	A	137	1.494	8.093	14.295	1.00	17.23
ATOM	948	O	HIS	A	137	2.513	7.496	13.947	1.00	17.71
ATOM	949	N	ASN	A	138	1.428	9.423	14.394	1.00	16.24
ATOM	950	CA	ASN	A	138	2.590	10.238	14.046	1.00	17.25
ATOM	951	CB	ASN	A	138	2.470	10.816	12.632	1.00	17.99
ATOM	952	CG	ASN	A	138	2.330	9.741	11.562	1.00	18.27
ATOM	953	OD1	ASN	A	138	1.219	9.397	11.126	1.00	25.07
ATOM	954	ND2	ASN	A	138	3.457	9.169	11.189	1.00	19.74
ATOM	955	C	ASN	A	138	2.684	11.382	15.044	1.00	14.09
ATOM	956	O	ASN	A	138	1.676	11.996	15.397	1.00	15.42
ATOM	957	N	ILE	A	139	3.904	11.633	15.485	1.00	13.67
ATOM	958	CA	ILE	A	139	4.204	12.739	16.391	1.00	13.12
ATOM	959	CB	ILE	A	139	4.750	12.186	17.716	1.00	14.52
ATOM	960	CG1	ILE	A	139	3.714	11.302	18.394	1.00	14.31
ATOM	961	CD1	ILE	A	139	4.274	10.494	19.577	1.00	15.81
ATOM	962	CG2	ILE	A	139	5.125	13.346	18.653	1.00	15.50
ATOM	963	C	ILE	A	139	5.282	13.581	15.752	1.00	15.31
ATOM	964	O	ILE	A	139	6.323	13.073	15.333	1.00	16.48
ATOM	965	N	VAL	A	140	5.076	14.892	15.788	1.00	14.75
ATOM	966	CA	VAL	A	140	6.049	15.831	15.231	1.00	15.93
ATOM	967	CB	VAL	A	140	5.367	16.704	14.177	1.00	15.43
ATOM	968	CG1	VAL	A	140	6.329	17.788	13.728	1.00	16.73
ATOM	969	CG2	VAL	A	140	4.898	15.852	12.985	1.00	17.63
ATOM	970	C	VAL	A	140	6.531	16.700	16.377	1.00	16.09
ATOM	971	O	VAL	A	140	5.717	17.295	17.053	1.00	18.31
ATOM	972	N	MET	A	141	7.839	16.702	16.645	1.00	16.31
ATOM	973	CA	MET	A	141	8.421	17.472	17.741	1.00	17.39
ATOM	974	CB	MET	A	141	9.226	16.515	18.632	1.00	16.11
ATOM	975	CG	MET	A	141	10.082	17.201	19.670	1.00	16.87
ATOM	976	SD	MET	A	141	10.679	15.960	20.837	1.00	18.61
ATOM	977	CE	MET	A	141	11.650	16.998	21.959	1.00	19.51
ATOM	978	C	MET	A	141	9.344	18.530	17.127	1.00	17.17
ATOM	979	O	MET	A	141	10.303	18.177	16.439	1.00	17.62
ATOM	980	N	VAL	A	142	9.081	19.805	17.364	1.00	16.69
ATOM	981	CA	VAL	A	142	9.869	20.876	16.731	1.00	19.57
ATOM	982	CB	VAL	A	142	9.050	21.674	15.715	1.00	17.61
ATOM	983	CG1	VAL	A	142	8.808	20.820	14.463	1.00	20.20
ATOM	984	CG2	VAL	A	142	7.675	22.009	16.283	1.00	19.28
ATOM	985	C	VAL	A	142	10.477	21.756	17.829	1.00	21.83
ATOM	986	O	VAL	A	142	10.473	22.986	17.763	1.00	24.11
ATOM	987	N	THR	A	143	10.993	21.091	18.852	1.00	19.91

**FIGURE 271**

ATOM	988	CA	THR	A	143	11.845	21.727	19.857	1.00	20.81
ATOM	989	CB	THR	A	143	11.042	22.039	21.108	1.00	20.61
ATOM	990	OG1	THR	A	143	11.835	22.818	22.014	1.00	20.47
ATOM	991	CG2	THR	A	143	10.728	20.749	21.898	1.00	19.53
ATOM	992	C	THR	A	143	13.001	20.795	20.195	1.00	21.41
ATOM	993	O	THR	A	143	12.919	19.603	19.953	1.00	20.95
ATOM	994	N	GLN	A	144	14.096	21.337	20.719	1.00	21.06
ATOM	995	CA	GLN	A	144	15.047	20.523	21.456	1.00	21.41
ATOM	996	CB	GLN	A	144	16.453	21.107	21.274	1.00	20.22
ATOM	997	CG	GLN	A	144	16.883	21.003	19.815	1.00	24.39
ATOM	998	CD	GLN	A	144	18.359	21.298	19.583	1.00	35.02
ATOM	999	OE1	GLN	A	144	19.223	20.456	19.834	1.00	39.33
ATOM	1000	NE2	GLN	A	144	18.645	22.494	19.082	1.00	39.04
ATOM	1001	C	GLN	A	144	14.654	20.440	22.930	1.00	21.42
ATOM	1002	O	GLN	A	144	13.847	21.248	23.418	1.00	22.29
ATOM	1003	N	CYS	A	145	15.180	19.442	23.633	1.00	22.65
ATOM	1004	CA	CYS	A	145	14.894	19.289	25.055	1.00	21.56
ATOM	1005	CB	CYS	A	145	15.328	17.917	25.563	1.00	24.41
ATOM	1006	SG	CYS	A	145	14.340	16.594	24.859	1.00	25.88
ATOM	1007	C	CYS	A	145	15.512	20.364	25.934	1.00	22.77
ATOM	1008	O	CYS	A	145	14.891	20.755	26.915	1.00	24.26
ATOM	1009	N	VAL	A	146	16.719	20.828	25.592	1.00	23.87
ATOM	1010	CA	VAL	A	146	17.339	21.968	26.261	1.00	23.79
ATOM	1011	CB	VAL	A	146	18.563	21.575	27.130	1.00	24.52
ATOM	1012	CG1	VAL	A	146	19.148	22.814	27.803	1.00	25.21
ATOM	1013	CG2	VAL	A	146	18.189	20.488	28.141	1.00	23.81
ATOM	1014	C	VAL	A	146	17.767	22.977	25.204	1.00	24.71
ATOM	1015	O	VAL	A	146	18.313	22.613	24.157	1.00	25.61
ATOM	1016	N	GLU	A	147	17.443	24.238	25.459	1.00	25.28
ATOM	1017	CA	GLU	A	147	17.691	25.313	24.508	1.00	27.56
ATOM	1018	CB	GLU	A	147	16.406	25.661	23.747	1.00	26.39
ATOM	1019	CG	GLU	A	147	16.147	24.689	22.609	1.00	27.32
ATOM	1020	CD	GLU	A	147	14.780	24.858	21.965	1.00	30.78
ATOM	1021	OE1	GLU	A	147	13.981	25.680	22.460	1.00	34.57
ATOM	1022	OE2	GLU	A	147	14.494	24.143	20.984	1.00	29.08
ATOM	1023	C	GLU	A	147	18.200	26.521	25.286	1.00	29.05
ATOM	1024	O	GLU	A	147	17.526	27.046	26.173	1.00	29.89
ATOM	1025	N	LYS	A	148	19.419	26.935	24.961	1.00	32.08
ATOM	1026	CA	LYS	A	148	20.039	28.057	25.662	1.00	33.87
ATOM	1027	CB	LYS	A	148	19.459	29.383	25.157	1.00	34.11
ATOM	1028	CG	LYS	A	148	19.601	29.554	23.639	1.00	39.02
ATOM	1029	CD	LYS	A	148	19.140	30.923	23.161	1.00	46.18
ATOM	1030	CE	LYS	A	148	19.201	31.029	21.638	1.00	46.64
ATOM	1031	NZ	LYS	A	148	18.688	32.332	21.111	1.00	48.93
ATOM	1032	C	LYS	A	148	19.970	27.934	27.190	1.00	32.87
ATOM	1033	O	LYS	A	148	19.718	28.910	27.909	1.00	34.86
ATOM	1034	N	GLY	A	149	20.203	26.721	27.676	1.00	32.51
ATOM	1035	CA	GLY	A	149	20.364	26.475	29.100	1.00	31.75
ATOM	1036	C	GLY	A	149	19.065	26.281	29.850	1.00	32.98
ATOM	1037	O	GLY	A	149	19.060	26.224	31.078	1.00	34.77
ATOM	1038	N	ARG	A	150	17.960	26.198	29.113	1.00	28.60
ATOM	1039	CA	ARG	A	150	16.636	26.155	29.727	1.00	29.87

**FIGURE 272**

ATOM	1040	CB	ARG	A	150	15.753	27.256	29.140	1.00	27.76
ATOM	1041	CG	ARG	A	150	14.682	27.764	30.090	1.00	38.86
ATOM	1042	CD	ARG	A	150	13.434	26.895	30.207	1.00	47.60
ATOM	1043	NE	ARG	A	150	12.793	27.055	31.514	1.00	53.99
ATOM	1044	CZ	ARG	A	150	11.684	27.754	31.725	1.00	57.80
ATOM	1045	NH1	ARG	A	150	11.080	28.354	30.708	1.00	60.31
ATOM	1046	NH2	ARG	A	150	11.170	27.851	32.947	1.00	59.21
ATOM	1047	C	ARG	A	150	16.059	24.827	29.300	1.00	26.37
ATOM	1048	O	ARG	A	150	16.204	24.456	28.136	1.00	26.29
ATOM	1049	N	VAL	A	151	15.407	24.129	30.226	1.00	27.16
ATOM	1050	CA	VAL	A	151	14.784	22.862	29.876	1.00	26.73
ATOM	1051	CB	VAL	A	151	14.567	21.979	31.132	1.00	27.55
ATOM	1052	CG1	VAL	A	151	13.608	20.849	30.835	1.00	25.30
ATOM	1053	CG2	VAL	A	151	15.909	21.399	31.605	1.00	29.25
ATOM	1054	C	VAL	A	151	13.486	23.199	29.136	1.00	24.76
ATOM	1055	O	VAL	A	151	12.697	24.027	29.612	1.00	28.00
ATOM	1056	N	LYS	A	152	13.285	22.595	27.964	1.00	23.05
ATOM	1057	CA	LYS	A	152	12.147	22.954	27.114	1.00	23.12
ATOM	1058	CB	LYS	A	152	12.622	23.481	25.741	1.00	24.16
ATOM	1059	CG	LYS	A	152	13.479	24.753	25.812	1.00	26.71
ATOM	1060	CD	LYS	A	152	12.677	26.053	25.966	1.00	31.53
ATOM	1061	CE	LYS	A	152	13.274	27.189	25.109	1.00	31.75
ATOM	1062	NZ	LYS	A	152	13.081	28.512	25.766	1.00	39.48
ATOM	1063	C	LYS	A	152	11.170	21.809	26.923	1.00	22.29
ATOM	1064	O	LYS	A	152	9.987	22.029	26.641	1.00	18.68
ATOM	1065	N	CYS	A	153	11.677	20.599	27.139	1.00	22.37
ATOM	1066	CA	CYS	A	153	10.914	19.385	26.901	1.00	20.12
ATOM	1067	CB	CYS	A	153	10.752	19.107	25.412	1.00	19.37
ATOM	1068	SG	CYS	A	153	9.611	17.737	25.063	1.00	18.76
ATOM	1069	C	CYS	A	153	11.640	18.241	27.567	1.00	20.48
ATOM	1070	O	CYS	A	153	12.868	18.148	27.498	1.00	21.39
ATOM	1071	N	ASP	A	154	10.892	17.375	28.230	1.00	21.01
ATOM	1072	CA	ASP	A	154	11.490	16.164	28.782	1.00	20.95
ATOM	1073	CB	ASP	A	154	10.524	15.523	29.772	1.00	21.87
ATOM	1074	CG	ASP	A	154	11.150	14.365	30.511	1.00	25.17
ATOM	1075	OD1	ASP	A	154	12.202	14.589	31.155	1.00	24.97
ATOM	1076	OD2	ASP	A	154	10.662	13.223	30.477	1.00	24.65
ATOM	1077	C	ASP	A	154	11.831	15.185	27.650	1.00	20.85
ATOM	1078	O	ASP	A	154	11.233	15.218	26.586	1.00	20.84
ATOM	1079	N	HIS	A	155	12.838	14.337	27.860	1.00	20.25
ATOM	1080	CA	HIS	A	155	13.113	13.265	26.916	1.00	20.35
ATOM	1081	CB	HIS	A	155	14.579	12.839	27.069	1.00	21.06
ATOM	1082	CG	HIS	A	155	15.056	11.901	26.007	1.00	22.85
ATOM	1083	ND1	HIS	A	155	14.630	10.591	25.915	1.00	25.15
ATOM	1084	CE1	HIS	A	155	15.237	10.003	24.900	1.00	24.10
ATOM	1085	NE2	HIS	A	155	16.056	10.877	24.340	1.00	27.20
ATOM	1086	CD2	HIS	A	155	15.975	12.067	25.026	1.00	27.39
ATOM	1087	C	HIS	A	155	12.157	12.112	27.240	1.00	20.30
ATOM	1088	O	HIS	A	155	12.458	11.225	28.053	1.00	19.64
ATOM	1089	N	TYR	A	156	10.960	12.181	26.666	1.00	19.16
ATOM	1090	CA	TYR	A	156	9.814	11.436	27.165	1.00	18.36
ATOM	1091	CB	TYR	A	156	8.520	12.247	27.004	1.00	18.65

FIGURE 273

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ATOM	1092	CG	TYR	A	156	8.250	12.664	25.569	1.00	17.99
ATOM	1093	CD1	TYR	A	156	7.624	11.796	24.669	1.00	16.25
ATOM	1094	CE1	TYR	A	156	7.427	12.171	23.328	1.00	16.10
ATOM	1095	CZ	TYR	A	156	7.776	13.457	22.936	1.00	15.17
ATOM	1096	OH	TYR	A	156	7.497	13.806	21.627	1.00	15.03
ATOM	1097	CE2	TYR	A	156	8.397	14.321	23.810	1.00	21.32
ATOM	1098	CD2	TYR	A	156	8.618	13.922	25.132	1.00	16.85
ATOM	1099	C	TYR	A	156	9.678	10.091	26.469	1.00	17.96
ATOM	1100	O	TYR	A	156	8.723	9.365	26.730	1.00	18.06
ATOM	1101	N	TRP	A	157	10.660	9.764	25.635	1.00	19.28
ATOM	1102	CA	TRP	A	157	10.722	8.482	24.933	1.00	20.13
ATOM	1103	CB	TRP	A	157	10.668	8.723	23.414	1.00	18.70
ATOM	1104	CG	TRP	A	157	11.885	9.431	22.911	1.00	18.38
ATOM	1105	CD1	TRP	A	157	13.031	8.858	22.463	1.00	20.53
ATOM	1106	NE1	TRP	A	157	13.924	9.827	22.075	1.00	19.49
ATOM	1107	CE2	TRP	A	157	13.387	11.061	22.338	1.00	17.77
ATOM	1108	CD2	TRP	A	157	12.085	10.848	22.833	1.00	18.54
ATOM	1109	CE3	TRP	A	157	11.320	11.955	23.192	1.00	20.35
ATOM	1110	CZ3	TRP	A	157	11.836	13.222	23.012	1.00	20.87
ATOM	1111	CH2	TRP	A	157	13.145	13.404	22.500	1.00	22.03
ATOM	1112	CZ2	TRP	A	157	13.920	12.335	22.150	1.00	20.41
ATOM	1113	C	TRP	A	157	11.993	7.755	25.370	1.00	22.07
ATOM	1114	O	TRP	A	157	12.912	8.357	25.928	1.00	21.87
ATOM	1115	N	PRO	A	158	12.042	6.446	25.173	1.00	23.81
ATOM	1116	CA	PRO	A	158	13.207	5.671	25.615	1.00	25.18
ATOM	1117	CB	PRO	A	158	12.854	4.227	25.238	1.00	25.31
ATOM	1118	CG	PRO	A	158	11.341	4.234	25.220	1.00	24.87
ATOM	1119	CD	PRO	A	158	10.976	5.594	24.619	1.00	25.87
ATOM	1120	C	PRO	A	158	14.515	6.105	24.973	1.00	24.62
ATOM	1121	O	PRO	A	158	14.568	6.599	23.836	1.00	24.33
ATOM	1122	N	ALA	A	159	15.567	5.872	25.742	1.00	25.95
ATOM	1123	CA	ALA	A	159	16.937	6.192	25.347	1.00	27.03
ATOM	1124	CB	ALA	A	159	17.775	6.378	26.592	1.00	26.95
ATOM	1125	C	ALA	A	159	17.529	5.113	24.441	1.00	28.60
ATOM	1126	O	ALA	A	159	18.512	5.345	23.723	1.00	31.08
ATOM	1127	N	ASP	A	160	16.921	3.932	24.461	1.00	26.27
ATOM	1128	CA	ASP	A	160	17.429	2.795	23.710	1.00	26.44
ATOM	1129	CB	ASP	A	160	18.488	2.056	24.529	1.00	27.67
ATOM	1130	CG	ASP	A	160	17.981	1.620	25.873	1.00	28.84
ATOM	1131	OD1	ASP	A	160	16.776	1.290	26.014	1.00	26.79
ATOM	1132	OD2	ASP	A	160	18.735	1.597	26.865	1.00	32.92
ATOM	1133	C	ASP	A	160	16.296	1.855	23.363	1.00	25.36
ATOM	1134	O	ASP	A	160	15.141	2.250	23.501	1.00	23.64
ATOM	1135	N	GLN	A	161	16.614	0.641	22.915	1.00	23.95
ATOM	1136	CA	GLN	A	161	15.585	-0.240	22.365	1.00	24.83
ATOM	1137	CB	GLN	A	161	16.094	-1.043	21.164	1.00	26.83
ATOM	1138	CG	GLN	A	161	16.563	-0.146	20.012	1.00	32.67
ATOM	1139	CD	GLN	A	161	16.766	-0.870	18.682	1.00	42.17
ATOM	1140	OE1	GLN	A	161	16.550	-2.078	18.566	1.00	44.45
ATOM	1141	NE2	GLN	A	161	17.202	-0.125	17.675	1.00	44.50
ATOM	1142	C	GLN	A	161	14.907	-1.126	23.415	1.00	23.64
ATOM	1143	O	GLN	A	161	14.058	-1.955	23.069	1.00	26.15

**FIGURE 274**

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ATOM	1144	N	ASP	A	162	15.219	-0.906	24.689	1.00	21.69
ATOM	1145	CA	ASP	A	162	14.621	-1.750	25.724	1.00	22.06
ATOM	1146	CB	ASP	A	162	15.416	-1.717	27.025	1.00	20.34
ATOM	1147	CG	ASP	A	162	16.797	-2.326	26.891	1.00	29.79
ATOM	1148	OD1	ASP	A	162	17.083	-2.995	25.878	1.00	31.31
ATOM	1149	OD2	ASP	A	162	17.657	-2.177	27.779	1.00	39.34
ATOM	1150	C	ASP	A	162	13.240	-1.174	26.011	1.00	20.10
ATOM	1151	O	ASP	A	162	13.149	0.028	26.267	1.00	21.67
ATOM	1152	N	SER	A	163	12.210	-2.020	26.029	1.00	22.00
ATOM	1153	CA	SER	A	163	10.860	-1.555	26.374	1.00	19.52
ATOM	1154	CB	SER	A	163	9.797	-2.621	26.127	1.00	19.81
ATOM	1155	OG	SER	A	163	10.079	-3.816	26.840	1.00	24.08
ATOM	1156	C	SER	A	163	10.742	-0.998	27.791	1.00	20.81
ATOM	1157	O	SER	A	163	11.529	-1.343	28.699	1.00	19.79
ATOM	1158	N	LEU	A	164	9.765	-0.123	27.987	1.00	20.37
ATOM	1159	CA	LEU	A	164	9.525	0.494	29.298	1.00	20.27
ATOM	1160	CB	LEU	A	164	10.225	1.847	29.418	1.00	21.91
ATOM	1161	CG	LEU	A	164	11.716	2.029	29.730	1.00	28.59
ATOM	1162	CD1	LEU	A	164	11.962	3.530	29.619	1.00	32.46
ATOM	1163	CD2	LEU	A	164	11.994	1.587	31.160	1.00	29.88
ATOM	1164	C	LEU	A	164	8.031	0.814	29.392	1.00	17.64
ATOM	1165	O	LEU	A	164	7.400	1.129	28.385	1.00	19.87
ATOM	1166	N	TYR	A	165	7.511	0.782	30.613	1.00	18.28
ATOM	1167	CA	TYR	A	165	6.148	1.247	30.880	1.00	16.77
ATOM	1168	CB	TYR	A	165	5.625	0.605	32.160	1.00	17.12
ATOM	1169	CG	TYR	A	165	4.965	-0.711	31.893	1.00	20.15
ATOM	1170	CD1	TYR	A	165	3.698	-0.753	31.322	1.00	21.67
ATOM	1171	CE1	TYR	A	165	3.081	-1.967	31.054	1.00	19.75
ATOM	1172	CZ	TYR	A	165	3.726	-3.137	31.372	1.00	23.95
ATOM	1173	OH	TYR	A	165	3.113	-4.342	31.095	1.00	28.45
ATOM	1174	CE2	TYR	A	165	4.972	-3.123	31.935	1.00	21.42
ATOM	1175	CD2	TYR	A	165	5.587	-1.906	32.230	1.00	21.96
ATOM	1176	C	TYR	A	165	6.107	2.749	31.085	1.00	19.28
ATOM	1177	O	TYR	A	165	6.948	3.318	31.778	1.00	22.32
ATOM	1178	N	TYR	A	166	5.105	3.372	30.480	1.00	19.16
ATOM	1179	CA	TYR	A	166	4.668	4.714	30.858	1.00	18.90
ATOM	1180	CB	TYR	A	166	4.762	5.650	29.639	1.00	19.56
ATOM	1181	CG	TYR	A	166	6.180	5.875	29.174	1.00	18.34
ATOM	1182	CD1	TYR	A	166	6.896	6.985	29.601	1.00	16.76
ATOM	1183	CE1	TYR	A	166	8.223	7.190	29.153	1.00	18.94
ATOM	1184	CZ	TYR	A	166	8.777	6.306	28.245	1.00	22.27
ATOM	1185	OH	TYR	A	166	10.067	6.497	27.780	1.00	24.37
ATOM	1186	CE2	TYR	A	166	8.067	5.222	27.789	1.00	26.25
ATOM	1187	CD2	TYR	A	166	6.768	5.016	28.245	1.00	22.49
ATOM	1188	C	TYR	A	166	3.235	4.628	31.372	1.00	19.75
ATOM	1189	O	TYR	A	166	2.297	4.549	30.586	1.00	20.21
ATOM	1190	N	GLY	A	167	3.032	4.609	32.694	1.00	20.43
ATOM	1191	CA	GLY	A	167	1.684	4.310	33.165	1.00	21.54
ATOM	1192	C	GLY	A	167	1.209	2.931	32.728	1.00	23.50
ATOM	1193	O	GLY	A	167	1.932	1.957	32.943	1.00	23.77
ATOM	1194	N	ASP	A	168	0.029	2.885	32.099	1.00	21.81
ATOM	1195	CA	ASP	A	168	-0.673	1.718	31.567	1.00	26.70

**FIGURE 275**

ATOM	1196	CB	ASP	A	168	-2.086	2.171	31.152	1.00	28.49
ATOM	1197	CG	ASP	A	168	-3.021	2.345	32.289	1.00	35.95
ATOM	1198	OD1	ASP	A	168	-2.581	2.521	33.451	1.00	44.09
ATOM	1199	OD2	ASP	A	168	-4.248	2.352	32.078	1.00	36.92
ATOM	1200	C	ASP	A	168	-0.150	1.270	30.206	1.00	24.58
ATOM	1201	O	ASP	A	168	-0.717	0.345	29.619	1.00	26.11
ATOM	1202	N	LEU	A	169	0.840	1.971	29.657	1.00	21.74
ATOM	1203	CA	LEU	A	169	1.205	1.797	28.261	1.00	19.33
ATOM	1204	CB	LEU	A	169	1.174	3.152	27.567	1.00	19.99
ATOM	1205	CG	LEU	A	169	1.541	3.109	26.095	1.00	25.20
ATOM	1206	CD1	LEU	A	169	0.471	3.894	25.397	1.00	26.72
ATOM	1207	CD2	LEU	A	169	2.886	3.769	25.917	1.00	25.81
ATOM	1208	C	LEU	A	169	2.619	1.256	28.197	1.00	20.65
ATOM	1209	O	LEU	A	169	3.485	1.740	28.907	1.00	21.93
ATOM	1210	N	ILE	A	170	2.857	0.250	27.370	1.00	18.58
ATOM	1211	CA	ILE	A	170	4.239	-0.182	27.197	1.00	19.82
ATOM	1212	CB	ILE	A	170	4.309	-1.728	27.237	1.00	19.31
ATOM	1213	CG1	ILE	A	170	5.746	-2.220	26.983	1.00	22.75
ATOM	1214	CD1	ILE	A	170	6.454	-2.519	28.252	1.00	22.15
ATOM	1215	CG2	ILE	A	170	3.367	-2.344	26.238	1.00	22.33
ATOM	1216	C	ILE	A	170	4.745	0.359	25.870	1.00	19.44
ATOM	1217	O	ILE	A	170	4.000	0.382	24.898	1.00	19.22
ATOM	1218	N	LEU	A	171	6.009	0.775	25.817	1.00	18.90
ATOM	1219	CA	LEU	A	171	6.505	1.440	24.631	1.00	18.91
ATOM	1220	CB	LEU	A	171	6.697	2.923	24.954	1.00	19.73
ATOM	1221	CG	LEU	A	171	7.108	3.758	23.751	1.00	25.25
ATOM	1222	CD1	LEU	A	171	6.670	5.162	24.054	1.00	28.25
ATOM	1223	CD2	LEU	A	171	8.618	3.703	23.723	1.00	29.29
ATOM	1224	C	LEU	A	171	7.852	0.820	24.354	1.00	19.14
ATOM	1225	O	LEU	A	171	8.556	0.467	25.305	1.00	18.74
ATOM	1226	N	GLN	A	172	8.174	0.655	23.074	1.00	17.00
ATOM	1227	CA	GLN	A	172	9.485	0.117	22.713	1.00	18.63
ATOM	1228	CB	GLN	A	172	9.392	-1.379	22.439	1.00	19.29
ATOM	1229	CG	GLN	A	172	10.724	-2.109	22.277	1.00	25.23
ATOM	1230	CD	GLN	A	172	10.473	-3.552	21.842	1.00	28.98
ATOM	1231	OE1	GLN	A	172	9.779	-3.776	20.859	1.00	30.54
ATOM	1232	NE2	GLN	A	172	11.024	-4.521	22.559	1.00	24.05
ATOM	1233	C	GLN	A	172	9.946	0.820	21.464	1.00	17.56
ATOM	1234	O	GLN	A	172	9.242	0.825	20.460	1.00	20.89
ATOM	1235	N	MET	A	173	11.166	1.337	21.506	1.00	18.09
ATOM	1236	CA	MET	A	173	11.703	2.006	20.315	1.00	19.64
ATOM	1237	CB	MET	A	173	12.860	2.934	20.713	1.00	15.61
ATOM	1238	CG	MET	A	173	13.415	3.696	19.493	1.00	20.90
ATOM	1239	SD	MET	A	173	14.248	5.251	19.921	1.00	22.90
ATOM	1240	CE	MET	A	173	15.666	4.695	20.787	1.00	24.34
ATOM	1241	C	MET	A	173	12.262	0.942	19.386	1.00	20.45
ATOM	1242	O	MET	A	173	13.189	0.219	19.790	1.00	23.02
ATOM	1243	N	LEU	A	174	11.783	0.916	18.144	1.00	19.05
ATOM	1244	CA	LEU	A	174	12.245	-0.028	17.131	1.00	20.65
ATOM	1245	CB	LEU	A	174	11.102	-0.481	16.243	1.00	22.05
ATOM	1246	CG	LEU	A	174	9.874	-1.071	16.934	1.00	19.97
ATOM	1247	CD1	LEU	A	174	8.825	-1.459	15.899	1.00	25.97

FIGURE 276



ATOM	1248	CD2	LEU	A	174	10.205	-2.246	17.825	1.00	24.09
ATOM	1249	C	LEU	A	174	13.385	0.487	16.262	1.00	22.40
ATOM	1250	O	LEU	A	174	14.226	-0.290	15.807	1.00	23.87
ATOM	1251	N	SER	A	175	13.419	1.794	16.031	1.00	21.05
ATOM	1252	CA	SER	A	175	14.501	2.374	15.250	1.00	20.96
ATOM	1253	CB	SER	A	175	14.261	2.317	13.743	1.00	19.89
ATOM	1254	OG	SER	A	175	13.038	2.900	13.345	1.00	21.43
ATOM	1255	C	SER	A	175	14.670	3.819	15.645	1.00	18.88
ATOM	1256	O	SER	A	175	13.739	4.466	16.097	1.00	19.35
ATOM	1257	N	GLU	A	176	15.880	4.300	15.439	1.00	17.31
ATOM	1258	CA	GLU	A	176	16.187	5.707	15.592	1.00	17.56
ATOM	1259	CB	GLU	A	176	16.755	5.907	16.988	1.00	19.24
ATOM	1260	CG	GLU	A	176	17.299	7.278	17.319	1.00	22.48
ATOM	1261	CD	GLU	A	176	17.792	7.337	18.749	1.00	24.54
ATOM	1262	OE1	GLU	A	176	18.951	6.933	19.003	1.00	35.75
ATOM	1263	OE2	GLU	A	176	17.050	7.813	19.612	1.00	25.21
ATOM	1264	C	GLU	A	176	17.141	6.067	14.463	1.00	17.07
ATOM	1265	O	GLU	A	176	18.276	5.559	14.397	1.00	19.83
ATOM	1266	N	SER	A	177	16.684	6.953	13.579	1.00	18.92
ATOM	1267	CA	SER	A	177	17.484	7.339	12.419	1.00	20.17
ATOM	1268	CB	SER	A	177	16.766	6.925	11.139	1.00	19.64
ATOM	1269	OG	SER	A	177	16.378	5.553	11.196	1.00	26.41
ATOM	1270	C	SER	A	177	17.786	8.844	12.477	1.00	18.07
ATOM	1271	O	SER	A	177	16.922	9.671	12.295	1.00	16.18
ATOM	1272	N	VAL	A	178	19.035	9.210	12.728	1.00	19.19
ATOM	1273	CA	VAL	A	178	19.408	10.605	12.863	1.00	18.44
ATOM	1274	CB	VAL	A	178	20.648	10.758	13.802	1.00	18.96
ATOM	1275	CG1	VAL	A	178	21.063	12.211	13.900	1.00	19.33
ATOM	1276	CG2	VAL	A	178	20.350	10.128	15.180	1.00	22.08
ATOM	1277	C	VAL	A	178	19.814	11.098	11.472	1.00	17.78
ATOM	1278	O	VAL	A	178	20.753	10.578	10.850	1.00	18.38
ATOM	1279	N	LEU	A	179	19.070	12.075	10.970	1.00	18.02
ATOM	1280	CA	LEU	A	179	19.347	12.663	9.663	1.00	16.64
ATOM	1281	CB	LEU	A	179	18.074	12.673	8.777	1.00	17.91
ATOM	1282	CG	LEU	A	179	17.193	11.405	8.899	1.00	18.10
ATOM	1283	CD1	LEU	A	179	15.925	11.510	8.066	1.00	18.94
ATOM	1284	CD2	LEU	A	179	17.912	10.091	8.610	1.00	15.53
ATOM	1285	C	LEU	A	179	19.922	14.059	9.914	1.00	17.92
ATOM	1286	O	LEU	A	179	20.078	14.486	11.066	1.00	18.05
ATOM	1287	N	PRO	A	180	20.307	14.764	8.862	1.00	15.89
ATOM	1288	CA	PRO	A	180	20.946	16.077	9.031	1.00	17.67
ATOM	1289	CB	PRO	A	180	21.055	16.593	7.609	1.00	16.61
ATOM	1290	CG	PRO	A	180	21.283	15.311	6.840	1.00	17.50
ATOM	1291	CD	PRO	A	180	20.255	14.354	7.454	1.00	16.79
ATOM	1292	C	PRO	A	180	20.190	17.085	9.863	1.00	17.87
ATOM	1293	O	PRO	A	180	20.802	17.756	10.702	1.00	19.82
ATOM	1294	N	GLU	A	181	18.878	17.189	9.656	1.00	17.72
ATOM	1295	CA	GLU	A	181	18.130	18.231	10.335	1.00	19.40
ATOM	1296	CB	GLU	A	181	17.737	19.349	9.366	1.00	20.16
ATOM	1297	CG	GLU	A	181	18.973	20.058	8.833	1.00	24.30
ATOM	1298	CD	GLU	A	181	18.615	21.064	7.765	1.00	30.86
ATOM	1299	OE1	GLU	A	181	17.597	20.866	7.057	1.00	33.00

**FIGURE 277**

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ATOM	1300	OE2	GLU	A	181	19.384	22.040	7.641	1.00	39.73
ATOM	1301	C	GLU	A	181	16.890	17.704	11.048	1.00	19.38
ATOM	1302	O	GLU	A	181	16.209	18.470	11.692	1.00	19.21
ATOM	1303	N	TRP	A	182	16.619	16.405	10.942	1.00	16.49
ATOM	1304	CA	TRP	A	182	15.667	15.784	11.836	1.00	16.57
ATOM	1305	CB	TRP	A	182	14.242	15.924	11.286	1.00	15.22
ATOM	1306	CG	TRP	A	182	14.026	15.548	9.833	1.00	13.61
ATOM	1307	CD1	TRP	A	182	13.615	14.342	9.354	1.00	15.76
ATOM	1308	NE1	TRP	A	182	13.472	14.385	7.987	1.00	16.34
ATOM	1309	CE2	TRP	A	182	13.726	15.663	7.565	1.00	13.66
ATOM	1310	CD2	TRP	A	182	14.072	16.427	8.713	1.00	14.52
ATOM	1311	CE3	TRP	A	182	14.416	17.767	8.547	1.00	16.17
ATOM	1312	CZ3	TRP	A	182	14.369	18.307	7.265	1.00	17.28
ATOM	1313	CH2	TRP	A	182	14.019	17.520	6.154	1.00	20.20
ATOM	1314	CZ2	TRP	A	182	13.697	16.196	6.281	1.00	18.18
ATOM	1315	C	TRP	A	182	16.019	14.330	12.118	1.00	17.43
ATOM	1316	O	TRP	A	182	16.831	13.721	11.423	1.00	16.83
ATOM	1317	N	THR	A	183	15.372	13.776	13.135	1.00	17.91
ATOM	1318	CA	THR	A	183	15.570	12.391	13.524	1.00	17.41
ATOM	1319	CB	THR	A	183	16.158	12.387	14.941	1.00	17.91
ATOM	1320	OG1	THR	A	183	17.508	12.889	14.867	1.00	19.93
ATOM	1321	CG2	THR	A	183	16.379	10.952	15.444	1.00	19.10
ATOM	1322	C	THR	A	183	14.216	11.704	13.494	1.00	18.88
ATOM	1323	O	THR	A	183	13.253	12.259	14.020	1.00	17.96
ATOM	1324	N	ILE	A	184	14.159	10.521	12.884	1.00	14.76
ATOM	1325	CA	ILE	A	184	12.915	9.770	12.795	1.00	15.33
ATOM	1326	CB	ILE	A	184	12.636	9.313	11.362	1.00	15.60
ATOM	1327	CG1	ILE	A	184	12.620	10.508	10.410	1.00	14.39
ATOM	1328	CD1	ILE	A	184	12.371	10.133	8.960	1.00	16.80
ATOM	1329	CG2	ILE	A	184	11.318	8.518	11.307	1.00	18.05
ATOM	1330	C	ILE	A	184	13.050	8.539	13.682	1.00	16.19
ATOM	1331	O	ILE	A	184	13.965	7.725	13.524	1.00	18.12
ATOM	1332	N	ARG	A	185	12.106	8.368	14.592	1.00	16.20
ATOM	1333	CA	ARG	A	185	12.083	7.159	15.425	1.00	15.84
ATOM	1334	CB	ARG	A	185	12.137	7.551	16.904	1.00	14.71
ATOM	1335	CG	ARG	A	185	13.505	8.055	17.326	1.00	14.82
ATOM	1336	CD	ARG	A	185	13.468	8.727	18.685	1.00	17.62
ATOM	1337	NE	ARG	A	185	14.822	9.174	19.013	1.00	21.26
ATOM	1338	CZ	ARG	A	185	15.195	10.448	18.973	1.00	21.83
ATOM	1339	NH1	ARG	A	185	14.345	11.379	18.584	1.00	21.65
ATOM	1340	NH2	ARG	A	185	16.422	10.807	19.323	1.00	26.56
ATOM	1341	C	ARG	A	185	10.808	6.386	15.181	1.00	16.96
ATOM	1342	O	ARG	A	185	9.775	6.967	14.866	1.00	18.49
ATOM	1343	N	GLU	A	186	10.876	5.063	15.330	1.00	18.06
ATOM	1344	CA	GLU	A	186	9.653	4.289	15.251	1.00	18.19
ATOM	1345	CB	GLU	A	186	9.729	3.232	14.126	1.00	18.51
ATOM	1346	CG	GLU	A	186	8.354	2.622	13.856	1.00	22.77
ATOM	1347	CD	GLU	A	186	8.367	1.477	12.851	1.00	31.07
ATOM	1348	OE1	GLU	A	186	7.330	1.279	12.179	1.00	37.68
ATOM	1349	OE2	GLU	A	186	9.388	0.775	12.730	1.00	33.77
ATOM	1350	C	GLU	A	186	9.452	3.600	16.597	1.00	18.63
ATOM	1351	O	GLU	A	186	10.411	3.051	17.142	1.00	19.33

**FIGURE 278**

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ATOM	1352	N	PHE	A	187	8.223	3.614	17.108	1.00	18.68
ATOM	1353	CA	PHE	A	187	7.927	2.978	18.399	1.00	18.08
ATOM	1354	CB	PHE	A	187	7.426	4.006	19.415	1.00	18.99
ATOM	1355	CG	PHE	A	187	8.400	5.092	19.715	1.00	19.80
ATOM	1356	CD1	PHE	A	187	8.155	6.382	19.283	1.00	21.67
ATOM	1357	CE1	PHE	A	187	9.066	7.403	19.559	1.00	23.38
ATOM	1358	CZ	PHE	A	187	10.242	7.106	20.223	1.00	20.03
ATOM	1359	CE2	PHE	A	187	10.489	5.828	20.641	1.00	25.29
ATOM	1360	CD2	PHE	A	187	9.595	4.819	20.369	1.00	22.12
ATOM	1361	C	PHE	A	187	6.815	1.954	18.257	1.00	19.06
ATOM	1362	O	PHE	A	187	5.881	2.161	17.472	1.00	18.23
ATOM	1363	N	LYS	A	188	6.898	0.863	19.018	1.00	18.39
ATOM	1364	CA	LYS	A	188	5.718	0.006	19.179	1.00	19.84
ATOM	1365	CB	LYS	A	188	6.146	-1.466	19.179	1.00	21.30
ATOM	1366	CG	LYS	A	188	4.994	-2.449	19.361	1.00	29.28
ATOM	1367	CD	LYS	A	188	5.549	-3.835	19.650	1.00	39.42
ATOM	1368	CE	LYS	A	188	4.535	-4.915	19.312	1.00	41.60
ATOM	1369	NZ	LYS	A	188	5.247	-6.141	18.830	1.00	47.94
ATOM	1370	C	LYS	A	188	5.076	0.377	20.513	1.00	17.53
ATOM	1371	O	LYS	A	188	5.765	0.472	21.511	1.00	20.08
ATOM	1372	N	ILE	A	189	3.761	0.584	20.551	1.00	18.34
ATOM	1373	CA	ILE	A	189	3.063	0.924	21.781	1.00	18.37
ATOM	1374	CB	ILE	A	189	2.662	2.409	21.729	1.00	17.71
ATOM	1375	CG1AILE	A	189	2.140	2.932	23.051	0.50	18.61	
ATOM	1376	CG1BILE	A	189	1.794	2.771	20.521	0.50	19.99	
ATOM	1377	CD1AILE	A	189	1.758	4.385	22.938	0.50	20.42	
ATOM	1378	CD1BILE	A	189	1.063	4.085	20.730	0.50	24.91	
ATOM	1379	CG2AILE	A	189	1.579	2.616	20.661	0.50	18.62	
ATOM	1380	CG2BILE	A	189	3.921	3.269	21.880	0.50	16.15	
ATOM	1381	C	ILE	A	189	1.848	-0.013	21.922	1.00	17.83
ATOM	1382	O	ILE	A	189	1.239	-0.400	20.918	1.00	16.89
ATOM	1383	N	CYS	A	190	1.567	-0.403	23.165	1.00	19.24
ATOM	1384	CA	CYS	A	190	0.313	-1.068	23.547	1.00	19.00
ATOM	1385	CB	CYS	A	190	0.590	-2.542	23.881	1.00	17.53
ATOM	1386	SG	CYS	A	190	1.496	-3.470	22.591	1.00	25.53
ATOM	1387	C	CYS	A	190	-0.258	-0.402	24.791	1.00	18.76
ATOM	1388	O	CYS	A	190	0.428	-0.293	25.789	1.00	18.93
ATOM	1389	N	GLY	A	191	-1.534	-0.004	24.757	1.00	18.32
ATOM	1390	CA	GLY	A	191	-2.213	0.527	25.930	1.00	20.25
ATOM	1391	C	GLY	A	191	-3.530	-0.202	26.162	1.00	20.72
ATOM	1392	O	GLY	A	191	-3.740	-1.262	25.606	1.00	20.46
ATOM	1393	N	GLU	A	192	-4.386	0.359	27.002	1.00	22.42
ATOM	1394	CA	GLU	A	192	-5.677	-0.253	27.279	1.00	24.91
ATOM	1395	CB	GLU	A	192	-6.421	0.585	28.315	1.00	23.09
ATOM	1396	CG	GLU	A	192	-7.854	0.111	28.537	1.00	29.54
ATOM	1397	CD	GLU	A	192	-8.646	0.961	29.512	1.00	32.49
ATOM	1398	OE1	GLU	A	192	-8.290	2.150	29.745	1.00	31.32
ATOM	1399	OE2	GLU	A	192	-9.661	0.426	30.018	1.00	34.67
ATOM	1400	C	GLU	A	192	-6.461	-0.414	25.974	1.00	24.14
ATOM	1401	O	GLU	A	192	-6.810	0.567	25.289	1.00	24.16
ATOM	1402	N	GLU	A	193	-6.719	-1.671	25.612	1.00	25.67
ATOM	1403	CA	GLU	A	193	-7.236	-1.978	24.284	1.00	26.65

**FIGURE 279**

ATOM	1404	CB	GLU	A	193	-7.337	-3.489	24.068	1.00	28.45
ATOM	1405	CG	GLU	A	193	-7.767	-3.843	22.648	1.00	29.15
ATOM	1406	CD	GLU	A	193	-7.780	-5.342	22.405	1.00	34.41
ATOM	1407	OE1	GLU	A	193	-7.163	-6.077	23.211	1.00	33.00
ATOM	1408	OE2	GLU	A	193	-8.400	-5.778	21.408	1.00	34.70
ATOM	1409	C	GLU	A	193	-8.598	-1.366	24.010	1.00	30.04
ATOM	1410	O	GLU	A	193	-9.510	-1.555	24.810	1.00	29.04
ATOM	1411	N	GLN	A	194	-8.730	-0.635	22.902	1.00	28.72
ATOM	1412	CA	GLN	A	194	-10.054	-0.254	22.417	1.00	30.57
ATOM	1413	CB	GLN	A	194	-10.349	1.229	22.654	1.00	30.30
ATOM	1414	CG	GLN	A	194	-10.354	1.700	24.097	1.00	38.21
ATOM	1415	CD	GLN	A	194	-10.661	3.192	24.205	1.00	45.81
ATOM	1416	OE1	GLN	A	194	-11.766	3.629	23.868	1.00	47.74
ATOM	1417	NE2	GLN	A	194	-9.682	3.976	24.667	1.00	48.46
ATOM	1418	C	GLN	A	194	-10.138	-0.612	20.937	1.00	30.81
ATOM	1419	O	GLN	A	194	-10.444	-1.762	20.596	1.00	31.43
ATOM	1420	N	LEU	A	195	-9.843	0.343	20.056	1.00	30.77
ATOM	1421	CA	LEU	A	195	-9.869	0.103	18.620	1.00	31.53
ATOM	1422	CB	LEU	A	195	-9.860	1.419	17.833	1.00	32.19
ATOM	1423	CG	LEU	A	195	-11.132	2.254	17.673	1.00	37.67
ATOM	1424	CD1	LEU	A	195	-10.860	3.277	16.579	1.00	33.54
ATOM	1425	CD2	LEU	A	195	-12.359	1.404	17.322	1.00	36.45
ATOM	1426	C	LEU	A	195	-8.692	-0.729	18.144	1.00	31.71
ATOM	1427	O	LEU	A	195	-8.796	-1.454	17.159	1.00	32.54
ATOM	1428	N	ASP	A	196	-7.554	-0.607	18.821	1.00	29.57
ATOM	1429	CA	ASP	A	196	-6.442	-1.492	18.533	1.00	28.34
ATOM	1430	CB	ASP	A	196	-5.424	-0.868	17.558	1.00	26.58
ATOM	1431	CG	ASP	A	196	-4.815	0.420	18.063	1.00	27.01
ATOM	1432	OD1	ASP	A	196	-5.145	0.869	19.183	1.00	27.13
ATOM	1433	OD2	ASP	A	196	-3.989	1.049	17.375	1.00	25.88
ATOM	1434	C	ASP	A	196	-5.791	-2.008	19.815	1.00	27.72
ATOM	1435	O	ASP	A	196	-6.099	-1.550	20.915	1.00	26.99
ATOM	1436	N	ALA	A	197	-4.912	-2.989	19.653	1.00	26.66
ATOM	1437	CA	ALA	A	197	-4.279	-3.646	20.792	1.00	26.48
ATOM	1438	CB	ALA	A	197	-4.557	-5.145	20.748	1.00	27.66
ATOM	1439	C	ALA	A	197	-2.774	-3.400	20.744	1.00	24.78
ATOM	1440	O	ALA	A	197	-2.122	-3.483	21.779	1.00	26.10
ATOM	1441	N	HIS	A	198	-2.237	-3.062	19.573	1.00	23.60
ATOM	1442	CA	HIS	A	198	-0.811	-2.715	19.465	1.00	24.08
ATOM	1443	CB	HIS	A	198	0.098	-3.951	19.353	1.00	26.63
ATOM	1444	CG	HIS	A	198	-0.227	-4.848	18.198	1.00	31.90
ATOM	1445	ND1	HIS	A	198	-1.094	-5.914	18.300	1.00	40.11
ATOM	1446	CE1	HIS	A	198	-1.186	-6.519	17.128	1.00	38.77
ATOM	1447	NE2	HIS	A	198	-0.406	-5.886	16.271	1.00	43.28
ATOM	1448	CD2	HIS	A	198	0.215	-4.844	16.918	1.00	33.37
ATOM	1449	C	HIS	A	198	-0.679	-1.841	18.217	1.00	22.55
ATOM	1450	O	HIS	A	198	-1.523	-1.964	17.329	1.00	24.31
ATOM	1451	N	ARG	A	199	0.343	-0.980	18.167	1.00	20.23
ATOM	1452	CA	ARG	A	199	0.416	0.062	17.138	1.00	18.98
ATOM	1453	CB	ARG	A	199	-0.341	1.295	17.651	1.00	17.45
ATOM	1454	CG	ARG	A	199	-0.566	2.347	16.560	1.00	19.76
ATOM	1455	CD	ARG	A	199	-1.165	3.621	17.129	1.00	19.36

FIGURE 280

ATOM	1456	NE	ARG	A	199	-2.420	3.326	17.842	1.00	18.91
ATOM	1457	CZ	ARG	A	199	-2.944	4.092	18.798	1.00	18.52
ATOM	1458	NH1	ARG	A	199	-2.381	5.247	19.087	1.00	17.08
ATOM	1459	NH2	ARG	A	199	-4.066	3.733	19.428	1.00	19.74
ATOM	1460	C	ARG	A	199	1.858	0.488	16.894	1.00	19.23
ATOM	1461	O	ARG	A	199	2.642	0.507	17.836	1.00	20.70
ATOM	1462	N	LEU	A	200	2.183	0.809	15.639	1.00	19.23
ATOM	1463	CA	LEU	A	200	3.472	1.424	15.309	1.00	21.60
ATOM	1464	CB	LEU	A	200	4.021	0.867	13.984	1.00	22.49
ATOM	1465	CG	LEU	A	200	4.201	-0.647	13.999	1.00	27.67
ATOM	1466	CD1	LEU	A	200	4.779	-1.119	12.672	1.00	28.09
ATOM	1467	CD2	LEU	A	200	5.160	-1.011	15.130	1.00	28.54
ATOM	1468	C	LEU	A	200	3.225	2.920	15.166	1.00	21.95
ATOM	1469	O	LEU	A	200	2.245	3.324	14.521	1.00	24.40
ATOM	1470	N	ILE	A	201	4.088	3.707	15.798	1.00	19.67
ATOM	1471	CA	ILE	A	201	4.022	5.165	15.845	1.00	22.82
ATOM	1472	CB	ILE	A	201	4.095	5.679	17.309	1.00	24.19
ATOM	1473	CG1	ILE	A	201	2.877	5.227	18.090	1.00	31.22
ATOM	1474	CD1	ILE	A	201	1.753	4.981	17.178	1.00	26.82
ATOM	1475	CG2	ILE	A	201	4.104	7.245	17.358	1.00	27.78
ATOM	1476	C	ILE	A	201	5.295	5.667	15.190	1.00	20.99
ATOM	1477	O	ILE	A	201	6.374	5.155	15.492	1.00	21.91
ATOM	1478	N	ARG	A	202	5.216	6.709	14.376	1.00	19.22
ATOM	1479	CA	ARG	A	202	6.473	7.346	13.949	1.00	18.14
ATOM	1480	CB	ARG	A	202	6.517	7.524	12.440	1.00	19.80
ATOM	1481	CG	ARG	A	202	6.696	6.213	11.693	1.00	25.47
ATOM	1482	CD	ARG	A	202	7.194	6.457	10.291	1.00	32.91
ATOM	1483	NE	ARG	A	202	7.555	5.237	9.577	1.00	38.14
ATOM	1484	CZ	ARG	A	202	8.719	4.609	9.709	1.00	43.78
ATOM	1485	NH1	ARG	A	202	9.646	5.051	10.552	1.00	42.73
ATOM	1486	NH2	ARG	A	202	8.964	3.520	8.994	1.00	45.94
ATOM	1487	C	ARG	A	202	6.600	8.705	14.639	1.00	18.39
ATOM	1488	O	ARG	A	202	5.591	9.334	14.917	1.00	19.31
ATOM	1489	N	HIS	A	203	7.829	9.072	14.982	1.00	17.24
ATOM	1490	CA	HIS	A	203	8.142	10.319	15.694	1.00	16.77
ATOM	1491	CB	HIS	A	203	8.729	9.943	17.068	1.00	16.74
ATOM	1492	CG	HIS	A	203	8.980	11.095	17.996	1.00	17.60
ATOM	1493	ND1	HIS	A	203	10.173	11.794	18.011	1.00	18.12
ATOM	1494	CE1	HIS	A	203	10.133	12.706	18.970	1.00	17.49
ATOM	1495	NE2	HIS	A	203	8.946	12.647	19.552	1.00	17.63
ATOM	1496	CD2	HIS	A	203	8.221	11.629	18.985	1.00	18.26
ATOM	1497	C	HIS	A	203	9.178	11.090	14.880	1.00	16.45
ATOM	1498	O	HIS	A	203	10.257	10.574	14.537	1.00	16.92
ATOM	1499	N	PHE	A	204	8.811	12.326	14.542	1.00	17.22
ATOM	1500	CA	PHE	A	204	9.613	13.165	13.656	1.00	17.63
ATOM	1501	CB	PHE	A	204	8.780	13.662	12.478	1.00	17.15
ATOM	1502	CG	PHE	A	204	8.211	12.569	11.663	1.00	19.02
ATOM	1503	CD1	PHE	A	204	6.914	12.146	11.891	1.00	17.04
ATOM	1504	CE1	PHE	A	204	6.350	11.116	11.141	1.00	18.50
ATOM	1505	CZ	PHE	A	204	7.075	10.508	10.152	1.00	21.34
ATOM	1506	CE2	PHE	A	204	8.386	10.932	9.889	1.00	22.09
ATOM	1507	CD2	PHE	A	204	8.952	11.967	10.652	1.00	20.96

**FIGURE 281**

ATOM	1508	C	PHE	A	204	10.142	14.333	14.466	1.00	18.46
ATOM	1509	O	PHE	A	204	9.382	15.198	14.850	1.00	19.13
ATOM	1510	N	HIS	A	205	11.448	14.343	14.733	1.00	19.90
ATOM	1511	CA	HIS	A	205	12.021	15.321	15.644	1.00	19.54
ATOM	1512	CB	HIS	A	205	12.825	14.610	16.716	1.00	21.35
ATOM	1513	CG	HIS	A	205	13.401	15.519	17.747	1.00	19.20
ATOM	1514	ND1	HIS	A	205	14.407	15.127	18.610	1.00	24.56
ATOM	1515	CE1	HIS	A	205	14.724	16.142	19.394	1.00	21.30
ATOM	1516	NE2	HIS	A	205	13.962	17.173	19.071	1.00	21.10
ATOM	1517	CD2	HIS	A	205	13.130	16.813	18.036	1.00	19.44
ATOM	1518	C	HIS	A	205	12.960	16.220	14.846	1.00	19.88
ATOM	1519	O	HIS	A	205	14.049	15.775	14.443	1.00	18.91
ATOM	1520	N	TYR	A	206	12.504	17.456	14.670	1.00	18.79
ATOM	1521	CA	TYR	A	206	13.205	18.483	13.897	1.00	18.49
ATOM	1522	CB	TYR	A	206	12.172	19.409	13.287	1.00	19.17
ATOM	1523	CG	TYR	A	206	12.754	20.435	12.354	1.00	19.28
ATOM	1524	CD1	TYR	A	206	13.004	20.115	11.023	1.00	16.50
ATOM	1525	CE1	TYR	A	206	13.540	21.052	10.141	1.00	17.88
ATOM	1526	CZ	TYR	A	206	13.831	22.327	10.588	1.00	22.43
ATOM	1527	OH	TYR	A	206	14.365	23.270	9.715	1.00	25.31
ATOM	1528	CE2	TYR	A	206	13.594	22.666	11.904	1.00	23.08
ATOM	1529	CD2	TYR	A	206	13.061	21.711	12.794	1.00	23.33
ATOM	1530	C	TYR	A	206	14.064	19.229	14.900	1.00	20.26
ATOM	1531	O	TYR	A	206	13.578	19.732	15.911	1.00	19.79
ATOM	1532	N	THR	A	207	15.368	19.199	14.661	1.00	21.64
ATOM	1533	CA	THR	A	207	16.318	19.479	15.717	1.00	23.75
ATOM	1534	CB	THR	A	207	17.403	18.361	15.771	1.00	23.14
ATOM	1535	OG1	THR	A	207	17.900	18.102	14.449	1.00	24.97
ATOM	1536	CG2	THR	A	207	16.813	17.010	16.198	1.00	25.49
ATOM	1537	C	THR	A	207	17.005	20.826	15.501	1.00	24.68
ATOM	1538	O	THR	A	207	17.894	21.182	16.291	1.00	26.32
ATOM	1539	N	VAL	A	208	16.588	21.554	14.473	1.00	24.44
ATOM	1540	CA	VAL	A	208	17.279	22.769	14.010	1.00	26.67
ATOM	1541	CB	VAL	A	208	17.996	22.597	12.627	1.00	24.93
ATOM	1542	CG1	VAL	A	208	19.123	21.595	12.712	1.00	27.87
ATOM	1543	CG2	VAL	A	208	17.022	22.243	11.490	1.00	27.01
ATOM	1544	C	VAL	A	208	16.420	24.039	14.032	1.00	26.34
ATOM	1545	O	VAL	A	208	16.647	24.972	13.252	1.00	29.43
ATOM	1546	N	TRP	A	209	15.419	24.083	14.903	1.00	25.54
ATOM	1547	CA	TRP	A	209	14.534	25.244	14.967	1.00	24.37
ATOM	1548	CB	TRP	A	209	13.080	24.768	14.863	1.00	25.75
ATOM	1549	CG	TRP	A	209	12.082	25.820	14.491	1.00	19.87
ATOM	1550	CD1	TRP	A	209	12.153	27.174	14.694	1.00	22.45
ATOM	1551	NE1	TRP	A	209	11.034	27.786	14.183	1.00	19.81
ATOM	1552	CE2	TRP	A	209	10.202	26.822	13.663	1.00	25.00
ATOM	1553	CD2	TRP	A	209	10.834	25.575	13.847	1.00	22.65
ATOM	1554	CE3	TRP	A	209	10.185	24.414	13.399	1.00	23.01
ATOM	1555	CZ3	TRP	A	209	8.951	24.531	12.793	1.00	19.01
ATOM	1556	CH2	TRP	A	209	8.354	25.789	12.609	1.00	24.83
ATOM	1557	CZ2	TRP	A	209	8.950	26.940	13.068	1.00	22.36
ATOM	1558	C	TRP	A	209	14.678	26.021	16.270	1.00	27.04
ATOM	1559	O	TRP	A	209	14.201	25.567	17.313	1.00	25.79

**FIGURE 282**

ATOM	1560	N	PRO	A	210	15.303	27.198	16.230	1.00	28.07
ATOM	1561	CA	PRO	A	210	15.452	28.000	17.454	1.00	28.03
ATOM	1562	CB	PRO	A	210	16.386	29.140	17.022	1.00	29.50
ATOM	1563	CG	PRO	A	210	16.944	28.740	15.657	1.00	31.17
ATOM	1564	CD	PRO	A	210	15.880	27.869	15.050	1.00	27.52
ATOM	1565	C	PRO	A	210	14.111	28.519	17.998	1.00	28.48
ATOM	1566	O	PRO	A	210	13.268	28.944	17.216	1.00	28.98
ATOM	1567	N	ASP	A	211	13.932	28.464	19.319	1.00	28.19
ATOM	1568	CA	ASP	A	211	12.736	28.971	19.993	1.00	26.86
ATOM	1569	CB	ASP	A	211	12.808	28.792	21.508	1.00	27.24
ATOM	1570	CG	ASP	A	211	11.451	28.935	22.177	1.00	26.06
ATOM	1571	OD1	ASP	A	211	10.461	29.156	21.452	1.00	26.31
ATOM	1572	OD2	ASP	A	211	11.288	28.849	23.413	1.00	29.60
ATOM	1573	C	ASP	A	211	12.585	30.448	19.661	1.00	28.25
ATOM	1574	O	ASP	A	211	13.577	31.180	19.556	1.00	26.45
ATOM	1575	N	HIS	A	212	11.348	30.872	19.435	1.00	25.98
ATOM	1576	CA	HIS	A	212	11.107	32.260	19.072	1.00	28.34
ATOM	1577	CB	HIS	A	212	11.743	33.153	20.145	1.00	29.66
ATOM	1578	CG	HIS	A	212	11.094	34.492	20.283	1.00	36.64
ATOM	1579	ND1	HIS	A	212	9.878	34.669	20.908	1.00	42.47
ATOM	1580	CE1	HIS	A	212	9.553	35.951	20.875	1.00	42.76
ATOM	1581	NE2	HIS	A	212	10.521	36.612	20.265	1.00	42.04
ATOM	1582	CD2	HIS	A	212	11.501	35.724	19.892	1.00	41.28
ATOM	1583	C	HIS	A	212	11.611	32.640	17.680	1.00	28.91
ATOM	1584	O	HIS	A	212	11.494	33.799	17.275	1.00	30.92
ATOM	1585	N	GLY	A	213	12.144	31.676	16.936	1.00	27.80
ATOM	1586	CA	GLY	A	213	12.751	31.971	15.650	1.00	25.99
ATOM	1587	C	GLY	A	213	12.192	31.153	14.511	1.00	26.04
ATOM	1588	O	GLY	A	213	11.068	30.640	14.565	1.00	24.20
ATOM	1589	N	VAL	A	214	13.012	31.066	13.470	1.00	26.25
ATOM	1590	CA	VAL	A	214	12.724	30.274	12.296	1.00	26.25
ATOM	1591	CB	VAL	A	214	12.213	31.170	11.158	1.00	27.10
ATOM	1592	CG1	VAL	A	214	11.042	32.016	11.659	1.00	27.24
ATOM	1593	CG2	VAL	A	214	13.347	32.040	10.628	1.00	28.86
ATOM	1594	C	VAL	A	214	13.949	29.498	11.855	1.00	24.52
ATOM	1595	O	VAL	A	214	15.095	29.866	12.167	1.00	24.97
ATOM	1596	N	PRO	A	215	13.711	28.392	11.152	1.00	25.64
ATOM	1597	CA	PRO	A	215	14.793	27.622	10.526	1.00	25.48
ATOM	1598	CB	PRO	A	215	14.042	26.573	9.706	1.00	26.92
ATOM	1599	CG	PRO	A	215	12.732	26.418	10.434	1.00	26.03
ATOM	1600	CD	PRO	A	215	12.380	27.805	10.901	1.00	24.12
ATOM	1601	C	PRO	A	215	15.609	28.518	9.612	1.00	27.43
ATOM	1602	O	PRO	A	215	15.121	29.554	9.158	1.00	27.22
ATOM	1603	N	GLU	A	216	16.841	28.111	9.315	1.00	28.05
ATOM	1604	CA	GLU	A	216	17.721	28.985	8.553	1.00	28.65
ATOM	1605	CB	GLU	A	216	19.161	28.486	8.661	1.00	30.42
ATOM	1606	CG	GLU	A	216	19.771	28.747	10.023	1.00	35.56
ATOM	1607	CD	GLU	A	216	21.219	29.169	9.904	1.00	42.95
ATOM	1608	OE1	GLU	A	216	21.795	28.954	8.814	1.00	48.84
ATOM	1609	OE2	GLU	A	216	21.765	29.715	10.889	1.00	45.41
ATOM	1610	C	GLU	A	216	17.315	29.114	7.087	1.00	27.95
ATOM	1611	O	GLU	A	216	17.649	30.113	6.448	1.00	27.93

FIGURE 283

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Three Dimensional Coordinates of HPTPbeta

ATOM	1612	N	THR	A	217	16.652	28.099	6.537	1.00	25.57
ATOM	1613	CA	THR	A	217	16.183	28.168	5.158	1.00	24.50
ATOM	1614	CB	THR	A	217	16.913	27.146	4.270	1.00	23.44
ATOM	1615	OG1	THR	A	217	16.712	25.831	4.821	1.00	23.33
ATOM	1616	CG2	THR	A	217	18.430	27.370	4.323	1.00	25.77
ATOM	1617	C	THR	A	217	14.697	27.816	5.082	1.00	22.97
ATOM	1618	O	THR	A	217	14.161	27.138	5.964	1.00	23.20
ATOM	1619	N	THR	A	218	14.037	28.246	4.013	1.00	22.43
ATOM	1620	CA	THR	A	218	12.685	27.753	3.753	1.00	21.86
ATOM	1621	CB	THR	A	218	12.003	28.563	2.637	1.00	22.40
ATOM	1622	OG1	THR	A	218	12.807	28.503	1.448	1.00	23.58
ATOM	1623	CG2	THR	A	218	11.911	30.047	3.006	1.00	25.57
ATOM	1624	C	THR	A	218	12.759	26.291	3.315	1.00	21.64
ATOM	1625	O	THR	A	218	11.897	25.483	3.667	1.00	21.31
ATOM	1626	N	GLN	A	219	13.802	25.938	2.562	1.00	21.89
ATOM	1627	CA	GLN	A	219	13.850	24.607	1.967	1.00	22.98
ATOM	1628	CB	GLN	A	219	15.019	24.424	0.995	1.00	25.47
ATOM	1629	CG	GLN	A	219	16.336	23.998	1.575	1.00	35.80
ATOM	1630	CD	GLN	A	219	16.446	22.483	1.671	1.00	42.19
ATOM	1631	OE1	GLN	A	219	17.144	21.962	2.541	1.00	48.46
ATOM	1632	NE2	GLN	A	219	15.751	21.777	0.785	1.00	48.31
ATOM	1633	C	GLN	A	219	13.831	23.550	3.060	1.00	22.41
ATOM	1634	O	GLN	A	219	13.184	22.523	2.872	1.00	21.59
ATOM	1635	N	SER	A	220	14.509	23.809	4.180	1.00	22.02
ATOM	1636	CA	SER	A	220	14.554	22.828	5.260	1.00	21.83
ATOM	1637	CB	SER	A	220	15.367	23.348	6.442	1.00	24.24
ATOM	1638	OG	SER	A	220	15.366	22.396	7.489	1.00	28.06
ATOM	1639	C	SER	A	220	13.157	22.477	5.785	1.00	21.60
ATOM	1640	O	SER	A	220	12.768	21.309	5.802	1.00	20.80
ATOM	1641	N	LEU	A	221	12.441	23.489	6.251	1.00	18.57
ATOM	1642	CA	LEU	A	221	11.111	23.186	6.787	1.00	21.03
ATOM	1643	CB	LEU	A	221	10.579	24.281	7.708	1.00	22.58
ATOM	1644	CG	LEU	A	221	9.389	23.815	8.562	1.00	22.37
ATOM	1645	CD1	LEU	A	221	9.934	22.943	9.698	1.00	22.41
ATOM	1646	CD2	LEU	A	221	8.700	25.049	9.117	1.00	21.13
ATOM	1647	C	LEU	A	221	10.114	22.722	5.737	1.00	21.34
ATOM	1648	O	LEU	A	221	9.317	21.822	6.010	1.00	19.35
ATOM	1649	N	ILE	A	222	10.165	23.274	4.524	1.00	17.11
ATOM	1650	CA	ILE	A	222	9.335	22.740	3.456	1.00	17.94
ATOM	1651	CB	ILE	A	222	9.569	23.524	2.130	1.00	17.12
ATOM	1652	CG1	ILE	A	222	9.065	24.974	2.276	1.00	19.50
ATOM	1653	CD1	ILE	A	222	9.548	25.933	1.171	1.00	19.49
ATOM	1654	CG2	ILE	A	222	8.921	22.783	0.968	1.00	21.07
ATOM	1655	C	ILE	A	222	9.601	21.260	3.217	1.00	19.20
ATOM	1656	O	ILE	A	222	8.673	20.485	3.025	1.00	19.95
ATOM	1657	N	GLN	A	223	10.869	20.854	3.207	1.00	16.23
ATOM	1658	CA	GLN	A	223	11.123	19.449	2.988	1.00	18.60
ATOM	1659	CB	GLN	A	223	12.616	19.228	2.715	1.00	19.15
ATOM	1660	CG	GLN	A	223	12.941	17.766	2.467	1.00	22.79
ATOM	1661	CD	GLN	A	223	12.643	17.290	1.061	1.00	33.15
ATOM	1662	OE1	GLN	A	223	12.155	18.051	0.211	1.00	33.66
ATOM	1663	NE2	GLN	A	223	12.917	16.006	0.817	1.00	35.76

**FIGURE 284**



ATOM	1664	C	GLN	A	223	10.657	18.623	4.188	1.00	16.93
ATOM	1665	O	GLN	A	223	10.199	17.502	3.988	1.00	18.36
ATOM	1666	N	PHE	A	224	10.797	19.161	5.401	1.00	15.46
ATOM	1667	CA	PHE	A	224	10.363	18.423	6.587	1.00	15.62
ATOM	1668	CB	PHE	A	224	10.706	19.198	7.848	1.00	17.10
ATOM	1669	CG	PHE	A	224	10.337	18.487	9.120	1.00	16.49
ATOM	1670	CD1	PHE	A	224	10.836	17.215	9.398	1.00	17.51
ATOM	1671	CE1	PHE	A	224	10.531	16.576	10.616	1.00	17.07
ATOM	1672	CZ	PHE	A	224	9.717	17.205	11.544	1.00	16.55
ATOM	1673	CE2	PHE	A	224	9.212	18.492	11.279	1.00	18.07
ATOM	1674	CD2	PHE	A	224	9.544	19.125	10.054	1.00	19.46
ATOM	1675	C	PHE	A	224	8.855	18.199	6.531	1.00	16.89
ATOM	1676	O	PHE	A	224	8.380	17.078	6.751	1.00	16.66
ATOM	1677	N	VAL	A	225	8.122	19.270	6.265	1.00	17.58
ATOM	1678	CA	VAL	A	225	6.654	19.197	6.213	1.00	18.48
ATOM	1679	CB	VAL	A	225	6.084	20.603	5.951	1.00	19.47
ATOM	1680	CG1	VAL	A	225	4.635	20.522	5.473	1.00	20.27
ATOM	1681	CG2	VAL	A	225	6.211	21.475	7.199	1.00	17.11
ATOM	1682	C	VAL	A	225	6.241	18.203	5.122	1.00	19.13
ATOM	1683	O	VAL	A	225	5.402	17.311	5.312	1.00	21.63
ATOM	1684	N	ARG	A	226	6.829	18.331	3.941	1.00	19.30
ATOM	1685	CA	ARG	A	226	6.514	17.393	2.871	1.00	20.41
ATOM	1686	CB	ARG	A	226	7.276	17.776	1.594	1.00	20.66
ATOM	1687	CG	ARG	A	226	6.656	18.990	0.916	1.00	22.30
ATOM	1688	CD	ARG	A	226	7.410	19.483	-0.302	1.00	24.61
ATOM	1689	NE	ARG	A	226	6.694	20.558	-0.983	1.00	24.83
ATOM	1690	CZ	ARG	A	226	7.223	21.308	-1.948	1.00	31.14
ATOM	1691	NH1	ARG	A	226	8.489	21.146	-2.306	1.00	30.48
ATOM	1692	NH2	ARG	A	226	6.500	22.253	-2.526	1.00	34.90
ATOM	1693	C	ARG	A	226	6.797	15.932	3.234	1.00	20.34
ATOM	1694	O	ARG	A	226	6.060	15.004	2.879	1.00	19.67
ATOM	1695	N	THR	A	227	7.910	15.717	3.920	1.00	19.65
ATOM	1696	CA	THR	A	227	8.323	14.388	4.338	1.00	20.52
ATOM	1697	CB	THR	A	227	9.715	14.485	4.977	1.00	22.22
ATOM	1698	OG1	THR	A	227	10.673	14.679	3.930	1.00	22.33
ATOM	1699	CG2	THR	A	227	10.110	13.143	5.586	1.00	24.52
ATOM	1700	C	THR	A	227	7.310	13.786	5.339	1.00	20.30
ATOM	1701	O	THR	A	227	6.886	12.642	5.191	1.00	20.93
ATOM	1702	N	VAL	A	228	6.918	14.576	6.335	1.00	19.24
ATOM	1703	CA	VAL	A	228	5.954	14.152	7.348	1.00	19.59
ATOM	1704	CB	VAL	A	228	5.778	15.216	8.430	1.00	19.58
ATOM	1705	CG1	VAL	A	228	4.631	14.832	9.353	1.00	20.61
ATOM	1706	CG2	VAL	A	228	7.077	15.408	9.206	1.00	19.73
ATOM	1707	C	VAL	A	228	4.609	13.877	6.690	1.00	21.77
ATOM	1708	O	VAL	A	228	4.013	12.844	6.938	1.00	21.18
ATOM	1709	N	ARG	A	229	4.183	14.774	5.805	1.00	22.98
ATOM	1710	CA	ARG	A	229	2.866	14.626	5.179	1.00	25.81
ATOM	1711	CB	ARG	A	229	2.546	15.904	4.402	1.00	23.29
ATOM	1712	CG	ARG	A	229	1.423	15.881	3.384	1.00	28.30
ATOM	1713	CD	ARG	A	229	0.053	15.877	3.972	1.00	30.57
ATOM	1714	NE	ARG	A	229	-0.051	16.615	5.222	1.00	30.38
ATOM	1715	CZ	ARG	A	229	-0.925	16.290	6.160	1.00	29.65

**FIGURE 285**

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ATOM	1716	NH1	ARG	A	229	-1.763	15.279	5.941	1.00	32.05
ATOM	1717	NH2	ARG	A	229	-0.987	16.980	7.291	1.00	29.06
ATOM	1718	C	ARG	A	229	2.879	13.378	4.301	1.00	26.73
ATOM	1719	O	ARG	A	229	1.879	12.653	4.242	1.00	27.86
ATOM	1720	N	ASP	A	230	4.015	13.108	3.658	1.00	26.22
ATOM	1721	CA	ASP	A	230	4.251	11.866	2.928	1.00	28.24
ATOM	1722	CB	ASP	A	230	5.621	11.877	2.251	1.00	28.67
ATOM	1723	CG	ASP	A	230	5.654	12.720	0.982	1.00	34.01
ATOM	1724	OD1	ASP	A	230	4.609	13.162	0.469	1.00	39.53
ATOM	1725	OD2	ASP	A	230	6.727	13.005	0.420	1.00	41.90
ATOM	1726	C	ASP	A	230	4.071	10.598	3.770	1.00	29.04
ATOM	1727	O	ASP	A	230	3.401	9.645	3.350	1.00	29.94
ATOM	1728	N	TYR	A	231	4.625	10.592	4.979	1.00	25.95
ATOM	1729	CA	TYR	A	231	4.433	9.452	5.871	1.00	26.50
ATOM	1730	CB	TYR	A	231	5.319	9.550	7.113	1.00	26.14
ATOM	1731	CG	TYR	A	231	6.748	9.078	6.927	1.00	23.97
ATOM	1732	CD1	TYR	A	231	7.774	9.978	6.647	1.00	19.78
ATOM	1733	CE1	TYR	A	231	9.081	9.547	6.522	1.00	22.19
ATOM	1734	CZ	TYR	A	231	9.390	8.211	6.654	1.00	23.00
ATOM	1735	OH	TYR	A	231	10.701	7.787	6.513	1.00	28.03
ATOM	1736	CE2	TYR	A	231	8.401	7.304	6.947	1.00	27.25
ATOM	1737	CD2	TYR	A	231	7.086	7.736	7.088	1.00	25.16
ATOM	1738	C	TYR	A	231	2.970	9.323	6.291	1.00	27.31
ATOM	1739	O	TYR	A	231	2.446	8.209	6.297	1.00	28.55
ATOM	1740	N	ILE	A	232	2.347	10.443	6.652	1.00	26.87
ATOM	1741	CA	ILE	A	232	0.914	10.502	6.996	1.00	27.98
ATOM	1742	CB	ILE	A	232	0.491	11.959	7.360	1.00	25.62
ATOM	1743	CG1	ILE	A	232	1.038	12.361	8.727	1.00	26.35
ATOM	1744	CD1	ILE	A	232	0.938	13.838	8.996	1.00	27.73
ATOM	1745	CG2	ILE	A	232	-1.058	12.159	7.424	1.00	25.67
ATOM	1746	C	ILE	A	232	0.046	9.935	5.875	1.00	32.06
ATOM	1747	O	ILE	A	232	-0.767	9.022	6.107	1.00	33.57
ATOM	1748	N	ASN	A	233	0.245	10.451	4.663	1.00	33.34
ATOM	1749	CA	ASN	A	233	-0.580	10.101	3.509	1.00	37.27
ATOM	1750	CB	ASN	A	233	-0.320	11.037	2.313	1.00	36.54
ATOM	1751	CG	ASN	A	233	-0.932	12.425	2.480	1.00	38.15
ATOM	1752	OD1	ASN	A	233	-1.648	12.712	3.442	1.00	42.42
ATOM	1753	ND2	ASN	A	233	-0.630	13.309	1.533	1.00	37.50
ATOM	1754	C	ASN	A	233	-0.429	8.635	3.090	1.00	39.12
ATOM	1755	O	ASN	A	233	-1.332	8.073	2.463	1.00	41.73
ATOM	1756	N	ARG	A	234	0.690	8.001	3.431	1.00	40.44
ATOM	1757	CA	ARG	A	234	0.962	6.653	2.945	1.00	42.23
ATOM	1758	CB	ARG	A	234	2.455	6.462	2.658	1.00	43.61
ATOM	1759	CG	ARG	A	234	2.949	7.205	1.408	1.00	43.04
ATOM	1760	CD	ARG	A	234	4.330	6.793	0.906	1.00	48.69
ATOM	1761	NE	ARG	A	234	5.341	6.796	1.963	1.00	51.23
ATOM	1762	CZ	ARG	A	234	6.283	7.724	2.115	1.00	54.19
ATOM	1763	NH1	ARG	A	234	6.365	8.748	1.272	1.00	52.70
ATOM	1764	NH2	ARG	A	234	7.144	7.630	3.122	1.00	51.22
ATOM	1765	C	ARG	A	234	0.400	5.566	3.863	1.00	42.06
ATOM	1766	O	ARG	A	234	0.337	4.379	3.512	1.00	42.43
ATOM	1767	N	SER	A	235	-0.055	6.003	5.031	1.00	40.54

**FIGURE 286**

ATOM	1768	CA	SER A 235	-0.488	5.108	6.087	1.00	39.57
ATOM	1769	CB	SER A 235	-0.193	5.750	7.451	1.00	39.71
ATOM	1770	OG	SER A 235	-1.211	5.554	8.422	1.00	41.17
ATOM	1771	C	SER A 235	-1.964	4.744	5.925	1.00	38.09
ATOM	1772	O	SER A 235	-2.799	5.592	5.590	1.00	36.22
ATOM	1773	N	PRO A 236	-2.278	3.477	6.177	1.00	38.34
ATOM	1774	CA	PRO A 236	-3.661	2.979	6.083	1.00	39.35
ATOM	1775	CB	PRO A 236	-3.537	1.499	6.461	1.00	40.18
ATOM	1776	CG	PRO A 236	-2.214	1.375	7.150	1.00	39.24
ATOM	1777	CD	PRO A 236	-1.322	2.425	6.563	1.00	38.58
ATOM	1778	C	PRO A 236	-4.678	3.691	6.987	1.00	39.63
ATOM	1779	O	PRO A 236	-5.889	3.488	6.852	1.00	42.61
ATOM	1780	N	GLY A 237	-4.208	4.544	7.889	1.00	36.88
ATOM	1781	CA	GLY A 237	-5.069	5.079	8.938	1.00	34.20
ATOM	1782	C	GLY A 237	-4.178	5.738	9.970	1.00	30.76
ATOM	1783	O	GLY A 237	-3.532	5.037	10.733	1.00	29.45
ATOM	1784	N	ALA A 238	-4.150	7.071	9.986	1.00	28.97
ATOM	1785	CA	ALA A 238	-3.119	7.844	10.698	1.00	24.56
ATOM	1786	CB	ALA A 238	-2.656	9.019	9.834	1.00	27.03
ATOM	1787	C	ALA A 238	-3.564	8.342	12.077	1.00	23.45
ATOM	1788	O	ALA A 238	-2.759	8.476	12.986	1.00	21.78
ATOM	1789	N	GLY A 239	-4.853	8.620	12.242	1.00	21.70
ATOM	1790	CA	GLY A 239	-5.342	9.313	13.423	1.00	21.30
ATOM	1791	C	GLY A 239	-4.903	10.766	13.366	1.00	19.24
ATOM	1792	O	GLY A 239	-4.282	11.186	12.388	1.00	18.48
ATOM	1793	N	PRO A 240	-5.233	11.526	14.405	1.00	20.05
ATOM	1794	CA	PRO A 240	-4.740	12.907	14.530	1.00	19.68
ATOM	1795	CB	PRO A 240	-5.327	13.390	15.861	1.00	18.80
ATOM	1796	CG	PRO A 240	-6.393	12.393	16.247	1.00	21.11
ATOM	1797	CD	PRO A 240	-6.041	11.103	15.562	1.00	20.23
ATOM	1798	C	PRO A 240	-3.213	12.834	14.624	1.00	18.33
ATOM	1799	O	PRO A 240	-2.661	11.864	15.141	1.00	19.27
ATOM	1800	N	THR A 241	-2.548	13.832	14.071	1.00	16.60
ATOM	1801	CA	THR A 241	-1.090	13.930	14.185	1.00	15.99
ATOM	1802	CB	THR A 241	-0.593	14.614	12.919	1.00	15.63
ATOM	1803	OG1	THR A 241	-0.797	13.696	11.849	1.00	17.20
ATOM	1804	CG2	THR A 241	0.941	14.788	12.984	1.00	15.00
ATOM	1805	C	THR A 241	-0.829	14.832	15.367	1.00	16.75
ATOM	1806	O	THR A 241	-1.343	15.938	15.418	1.00	17.15
ATOM	1807	N	VAL A 242	0.031	14.387	16.274	1.00	16.56
ATOM	1808	CA	VAL A 242	0.370	15.207	17.413	1.00	15.30
ATOM	1809	CB	VAL A 242	0.777	14.315	18.586	1.00	13.91
ATOM	1810	CG1	VAL A 242	1.584	15.122	19.651	1.00	17.96
ATOM	1811	CG2	VAL A 242	-0.473	13.828	19.205	1.00	14.74
ATOM	1812	C	VAL A 242	1.537	16.089	17.002	1.00	15.85
ATOM	1813	O	VAL A 242	2.491	15.610	16.401	1.00	17.01
ATOM	1814	N	VAL A 243	1.421	17.375	17.295	1.00	15.52
ATOM	1815	CA	VAL A 243	2.525	18.289	17.027	1.00	15.21
ATOM	1816	CB	VAL A 243	2.223	19.311	15.915	1.00	13.92
ATOM	1817	CG1	VAL A 243	3.540	20.039	15.607	1.00	15.53
ATOM	1818	CG2	VAL A 243	1.710	18.648	14.624	1.00	15.61
ATOM	1819	C	VAL A 243	2.848	19.042	18.309	1.00	13.38

**FIGURE 287**

ATOM	1820	O	VAL	A	243	1.977	19.511	19.006	1.00	15.35
ATOM	1821	N	HIS	A	244	4.127	19.115	18.681	1.00	13.84
ATOM	1822	CA	HIS	A	244	4.487	19.880	19.875	1.00	13.12
ATOM	1823	CB	HIS	A	244	4.399	19.034	21.167	1.00	11.87
ATOM	1824	CG	HIS	A	244	5.560	18.115	21.377	1.00	15.41
ATOM	1825	ND1	HIS	A	244	6.728	18.524	21.977	1.00	16.81
ATOM	1826	CE1	HIS	A	244	7.566	17.503	22.042	1.00	16.27
ATOM	1827	NE2	HIS	A	244	6.998	16.461	21.463	1.00	16.52
ATOM	1828	CD2	HIS	A	244	5.726	16.808	21.067	1.00	14.38
ATOM	1829	C	HIS	A	244	5.856	20.526	19.735	1.00	14.17
ATOM	1830	O	HIS	A	244	6.688	20.046	18.970	1.00	16.93
ATOM	1831	N	CYS	A	245	6.041	21.611	20.492	1.00	16.57
ATOM	1832	CA	CYS	A	245	7.349	22.211	20.652	1.00	17.05
ATOM	1833	CB	CYS	A	245	7.396	23.573	19.941	1.00	15.83
ATOM	1834	SG	CYS	A	245	5.834	24.486	20.086	1.00	19.56
ATOM	1835	C	CYS	A	245	7.521	22.283	22.151	1.00	17.57
ATOM	1836	O	CYS	A	245	7.391	21.246	22.839	1.00	17.79
ATOM	1837	N	SER	A	246	7.815	23.464	22.693	1.00	18.50
ATOM	1838	CA	SER	A	246	7.937	23.554	24.159	1.00	16.87
ATOM	1839	CB	SER	A	246	9.020	24.552	24.628	1.00	18.69
ATOM	1840	OG	SER	A	246	9.228	24.422	26.031	1.00	18.18
ATOM	1841	C	SER	A	246	6.573	23.942	24.722	1.00	17.49
ATOM	1842	O	SER	A	246	6.046	23.238	25.580	1.00	17.21
ATOM	1843	N	ALA	A	247	6.019	25.049	24.239	1.00	18.04
ATOM	1844	CA	ALA	A	247	4.736	25.497	24.749	1.00	19.26
ATOM	1845	CB	ALA	A	247	4.710	27.036	24.838	1.00	19.87
ATOM	1846	C	ALA	A	247	3.573	25.010	23.903	1.00	17.94
ATOM	1847	O	ALA	A	247	2.430	25.177	24.309	1.00	19.75
ATOM	1848	N	GLY	A	248	3.848	24.439	22.729	1.00	20.22
ATOM	1849	CA	GLY	A	248	2.806	24.174	21.748	1.00	18.63
ATOM	1850	C	GLY	A	248	2.132	25.433	21.196	1.00	18.85
ATOM	1851	O	GLY	A	248	0.898	25.475	21.017	1.00	19.05
ATOM	1852	N	VAL	A	249	2.954	26.427	20.867	1.00	17.12
ATOM	1853	CA	VAL	A	249	2.463	27.715	20.358	1.00	16.65
ATOM	1854	CB	VAL	A	249	2.562	28.810	21.445	1.00	18.34
ATOM	1855	CG1	VAL	A	249	2.075	30.142	20.845	1.00	21.79
ATOM	1856	CG2	VAL	A	249	1.744	28.426	22.662	1.00	20.69
ATOM	1857	C	VAL	A	249	3.164	28.180	19.070	1.00	17.87
ATOM	1858	O	VAL	A	249	2.543	28.251	18.008	1.00	17.85
ATOM	1859	N	GLY	A	250	4.453	28.487	19.140	1.00	19.22
ATOM	1860	CA	GLY	A	250	5.039	29.253	18.055	1.00	19.94
ATOM	1861	C	GLY	A	250	5.491	28.321	16.963	1.00	19.70
ATOM	1862	O	GLY	A	250	5.086	28.456	15.808	1.00	19.01
ATOM	1863	N	ARG	A	251	6.366	27.389	17.335	1.00	19.14
ATOM	1864	CA	ARG	A	251	6.939	26.498	16.347	1.00	19.05
ATOM	1865	CB	ARG	A	251	8.195	25.860	16.890	1.00	19.24
ATOM	1866	CG	ARG	A	251	9.219	26.952	17.158	1.00	15.81
ATOM	1867	CD	ARG	A	251	10.481	26.394	17.775	1.00	16.06
ATOM	1868	NE	ARG	A	251	10.226	26.200	19.214	1.00	19.50
ATOM	1869	CZ	ARG	A	251	11.094	25.704	20.078	1.00	22.30
ATOM	1870	NH1	ARG	A	251	12.290	25.314	19.644	1.00	20.21
ATOM	1871	NH2	ARG	A	251	10.758	25.569	21.366	1.00	23.16

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ATOM	1872	C	ARG	A	251	5.901	25.497	15.876	1.00	18.56
ATOM	1873	O	ARG	A	251	5.813	25.250	14.680	1.00	17.43
ATOM	1874	N	THR	A	252	5.111	24.941	16.794	1.00	18.19
ATOM	1875	CA	THR	A	252	3.982	24.106	16.377	1.00	17.71
ATOM	1876	CB	THR	A	252	3.217	23.628	17.607	1.00	17.40
ATOM	1877	OG1	ATHR	A	252	2.999	24.765	18.450	0.50	23.23
ATOM	1878	OG1	BTHR	A	252	4.029	22.684	18.306	0.50	13.92
ATOM	1879	CG2	ATHR	A	252	4.083	22.722	18.434	0.50	15.60
ATOM	1880	CG2	BTHR	A	252	1.947	22.833	17.252	0.50	10.20
ATOM	1881	C	THR	A	252	3.019	24.851	15.484	1.00	17.17
ATOM	1882	O	THR	A	252	2.600	24.297	14.475	1.00	15.23
ATOM	1883	N	GLY	A	253	2.661	26.092	15.832	1.00	16.60
ATOM	1884	CA	GLY	A	253	1.745	26.853	14.990	1.00	16.77
ATOM	1885	C	GLY	A	253	2.300	27.075	13.599	1.00	17.58
ATOM	1886	O	GLY	A	253	1.597	26.966	12.604	1.00	16.20
ATOM	1887	N	THR	A	254	3.608	27.343	13.507	1.00	15.25
ATOM	1888	CA	THR	A	254	4.197	27.626	12.216	1.00	14.32
ATOM	1889	CB	THR	A	254	5.628	28.249	12.422	1.00	13.48
ATOM	1890	OG1	THR	A	254	5.439	29.443	13.202	1.00	18.67
ATOM	1891	CG2	THR	A	254	6.190	28.764	11.050	1.00	17.19
ATOM	1892	C	THR	A	254	4.262	26.342	11.390	1.00	15.60
ATOM	1893	O	THR	A	254	4.052	26.379	10.184	1.00	17.10
ATOM	1894	N	PHE	A	255	4.576	25.222	12.032	1.00	15.48
ATOM	1895	CA	PHE	A	255	4.640	23.944	11.321	1.00	15.29
ATOM	1896	CB	PHE	A	255	5.043	22.832	12.304	1.00	17.14
ATOM	1897	CG	PHE	A	255	4.977	21.465	11.674	1.00	17.46
ATOM	1898	CD1	PHE	A	255	6.052	21.001	10.959	1.00	20.12
ATOM	1899	CE1	PHE	A	255	6.001	19.759	10.330	1.00	19.80
ATOM	1900	CZ	PHE	A	255	4.860	19.003	10.351	1.00	15.16
ATOM	1901	CE2	PHE	A	255	3.755	19.457	11.013	1.00	16.37
ATOM	1902	CD2	PHE	A	255	3.796	20.725	11.662	1.00	15.77
ATOM	1903	C	PHE	A	255	3.271	23.608	10.725	1.00	15.30
ATOM	1904	O	PHE	A	255	3.145	23.207	9.548	1.00	15.54
ATOM	1905	N	ILE	A	256	2.256	23.693	11.568	1.00	13.96
ATOM	1906	CA	ILE	A	256	0.914	23.321	11.106	1.00	14.62
ATOM	1907	CB	ILE	A	256	-0.077	23.288	12.256	1.00	14.78
ATOM	1908	CG1	ILE	A	256	0.284	22.166	13.221	1.00	16.14
ATOM	1909	CD1	ILE	A	256	-0.671	22.068	14.439	1.00	16.04
ATOM	1910	CG2	ILE	A	256	-1.497	23.016	11.695	1.00	14.89
ATOM	1911	C	ILE	A	256	0.465	24.282	9.993	1.00	14.00
ATOM	1912	O	ILE	A	256	-0.065	23.831	8.975	1.00	15.99
ATOM	1913	N	ALA	A	257	0.637	25.588	10.195	1.00	14.29
ATOM	1914	CA	ALA	A	257	0.292	26.539	9.130	1.00	13.84
ATOM	1915	CB	ALA	A	257	0.571	27.988	9.530	1.00	14.99
ATOM	1916	C	ALA	A	257	0.955	26.205	7.798	1.00	14.85
ATOM	1917	O	ALA	A	257	0.328	26.208	6.746	1.00	16.25
ATOM	1918	N	LEU	A	258	2.258	25.958	7.833	1.00	13.44
ATOM	1919	CA	LEU	A	258	2.950	25.564	6.631	1.00	14.78
ATOM	1920	CB	LEU	A	258	4.448	25.390	6.889	1.00	13.66
ATOM	1921	CG	LEU	A	258	5.247	25.137	5.615	1.00	15.58
ATOM	1922	CD1	LEU	A	258	5.050	26.284	4.593	1.00	17.44
ATOM	1923	CD2	LEU	A	258	6.745	25.019	5.965	1.00	16.74

**FIGURE 289**

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ATOM	1924	C	LEU	A	258	2.391	24.297	6.013	1.00	14.93
ATOM	1925	O	LEU	A	258	2.223	24.210	4.805	1.00	14.85
ATOM	1926	N	ASP	A	259	2.105	23.290	6.838	1.00	15.85
ATOM	1927	CA	ASP	A	259	1.470	22.081	6.314	1.00	16.95
ATOM	1928	CB	ASP	A	259	1.186	21.146	7.501	1.00	18.21
ATOM	1929	CG	ASP	A	259	0.834	19.718	7.102	1.00	22.66
ATOM	1930	OD1	ASP	A	259	1.205	19.202	6.016	1.00	20.07
ATOM	1931	OD2	ASP	A	259	0.217	18.996	7.920	1.00	33.57
ATOM	1932	C	ASP	A	259	0.173	22.425	5.567	1.00	15.64
ATOM	1933	O	ASP	A	259	-0.024	21.963	4.439	1.00	17.43
ATOM	1934	N	ARG	A	260	-0.682	23.260	6.148	1.00	16.51
ATOM	1935	CA	ARG	A	260	-1.947	23.632	5.504	1.00	16.62
ATOM	1936	CB	ARG	A	260	-2.836	24.464	6.425	1.00	18.22
ATOM	1937	CG	ARG	A	260	-3.435	23.668	7.571	1.00	25.51
ATOM	1938	CD	ARG	A	260	-4.950	23.818	7.664	1.00	40.63
ATOM	1939	NE	ARG	A	260	-5.428	25.199	7.581	1.00	49.41
ATOM	1940	CZ	ARG	A	260	-5.919	25.797	6.491	1.00	52.56
ATOM	1941	NH1	ARG	A	260	-6.025	25.176	5.311	1.00	50.50
ATOM	1942	NH2	ARG	A	260	-6.310	27.059	6.592	1.00	53.49
ATOM	1943	C	ARG	A	260	-1.685	24.431	4.233	1.00	16.45
ATOM	1944	O	ARG	A	260	-2.247	24.131	3.165	1.00	18.96
ATOM	1945	N	ILE	A	261	-0.767	25.394	4.310	1.00	15.77
ATOM	1946	CA	ILE	A	261	-0.542	26.228	3.138	1.00	18.24
ATOM	1947	CB	ILE	A	261	0.206	27.521	3.521	1.00	21.96
ATOM	1948	CG1A	ILE	A	261	1.651	27.329	3.908	0.50	17.99
ATOM	1949	CG1B	ILE	A	261	-0.685	28.609	4.112	0.50	19.62
ATOM	1950	CD1A	ILE	A	261	2.215	28.633	4.442	0.50	20.12
ATOM	1951	CD1B	ILE	A	261	0.000	29.266	5.315	0.50	24.86
ATOM	1952	CG2A	ILE	A	261	-0.604	28.289	4.549	0.50	18.49
ATOM	1953	CG2B	ILE	A	261	1.211	27.966	2.472	0.50	19.26
ATOM	1954	C	ILE	A	261	0.067	25.456	1.973	1.00	19.50
ATOM	1955	O	ILE	A	261	-0.278	25.684	0.799	1.00	17.34
ATOM	1956	N	LEU	A	262	1.002	24.564	2.291	1.00	18.57
ATOM	1957	CA	LEU	A	262	1.572	23.704	1.256	1.00	19.04
ATOM	1958	CB	LEU	A	262	2.736	22.874	1.776	1.00	17.43
ATOM	1959	CG	LEU	A	262	4.004	23.676	2.064	1.00	16.24
ATOM	1960	CD1	LEU	A	262	5.114	22.827	2.635	1.00	18.88
ATOM	1961	CD2	LEU	A	262	4.509	24.501	0.861	1.00	21.60
ATOM	1962	C	LEU	A	262	0.533	22.831	0.568	1.00	18.56
ATOM	1963	O	LEU	A	262	0.613	22.605	-0.649	1.00	19.59
ATOM	1964	N	GLN	A	263	-0.423	22.344	1.350	1.00	16.77
ATOM	1965	CA	GLN	A	263	-1.517	21.572	0.772	1.00	18.98
ATOM	1966	CB	GLN	A	263	-2.359	20.878	1.850	1.00	21.56
ATOM	1967	CG	GLN	A	263	-1.581	19.736	2.499	1.00	24.14
ATOM	1968	CD	GLN	A	263	-2.322	19.083	3.652	1.00	30.60
ATOM	1969	OE1	GLN	A	263	-3.120	18.178	3.445	1.00	37.41
ATOM	1970	NE2	GLN	A	263	-2.058	19.540	4.868	1.00	34.60
ATOM	1971	C	GLN	A	263	-2.383	22.438	-0.124	1.00	18.41
ATOM	1972	O	GLN	A	263	-2.861	21.939	-1.165	1.00	19.16
ATOM	1973	N	GLN	A	264	-2.585	23.692	0.286	1.00	17.80
ATOM	1974	CA	GLN	A	264	-3.284	24.667	-0.547	1.00	19.17
ATOM	1975	CB	GLN	A	264	-3.375	26.035	0.130	1.00	21.52

**FIGURE 290**

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ATOM	1976	CG	GLN	A	264	-4.488	26.101	1.152	1.00	22.71
ATOM	1977	CD	GLN	A	264	-4.485	27.392	1.924	1.00	27.25
ATOM	1978	OE1	GLN	A	264	-3.974	28.404	1.452	1.00	28.01
ATOM	1979	NE2	GLN	A	264	-5.062	27.364	3.126	1.00	32.99
ATOM	1980	C	GLN	A	264	-2.569	24.866	-1.856	1.00	17.97
ATOM	1981	O	GLN	A	264	-3.195	24.854	-2.914	1.00	18.97
ATOM	1982	N	LEU	A	265	-1.243	25.044	-1.807	1.00	16.73
ATOM	1983	CA	LEU	A	265	-0.524	25.223	-3.059	1.00	15.75
ATOM	1984	CB	LEU	A	265	0.944	25.599	-2.792	1.00	16.04
ATOM	1985	CG	LEU	A	265	1.177	26.933	-2.072	1.00	16.47
ATOM	1986	CD1	LEU	A	265	2.699	27.094	-1.977	1.00	23.16
ATOM	1987	CD2	LEU	A	265	0.556	28.085	-2.851	1.00	23.92
ATOM	1988	C	LEU	A	265	-0.567	24.006	-3.963	1.00	17.46
ATOM	1989	O	LEU	A	265	-0.348	24.116	-5.177	1.00	19.71
ATOM	1990	N	ASP	A	266	-0.787	22.828	-3.397	1.00	15.69
ATOM	1991	CA	ASP	A	266	-0.767	21.626	-4.210	1.00	16.88
ATOM	1992	CB	ASP	A	266	-0.328	20.423	-3.368	1.00	17.44
ATOM	1993	CG	ASP	A	266	1.156	20.375	-3.149	1.00	21.62
ATOM	1994	OD1	ASP	A	266	1.862	21.159	-3.791	1.00	21.03
ATOM	1995	OD2	ASP	A	266	1.680	19.586	-2.335	1.00	25.07
ATOM	1996	C	ASP	A	266	-2.163	21.343	-4.768	1.00	16.49
ATOM	1997	O	ASP	A	266	-2.320	20.469	-5.624	1.00	18.65
ATOM	1998	N	SER	A	267	-3.151	22.112	-4.318	1.00	17.93
ATOM	1999	CA	SER	A	267	-4.562	21.826	-4.646	1.00	18.68
ATOM	2000	CB	SER	A	267	-5.334	21.390	-3.392	1.00	20.21
ATOM	2001	OG	ASER	A	267	-4.827	20.179	-2.869	0.50	22.09
ATOM	2002	OG	BSER	A	267	-5.151	22.290	-2.327	0.50	19.41
ATOM	2003	C	SER	A	267	-5.375	22.910	-5.354	1.00	19.44
ATOM	2004	O	SER	A	267	-6.260	22.591	-6.147	1.00	19.32
ATOM	2005	N	LYS	A	268	-5.083	24.164	-5.022	1.00	18.83
ATOM	2006	CA	LYS	A	268	-5.848	25.354	-5.377	1.00	20.16
ATOM	2007	CB	LYS	A	268	-6.430	25.992	-4.099	1.00	20.65
ATOM	2008	CG	LYS	A	268	-7.498	25.094	-3.470	1.00	26.76
ATOM	2009	CD	LYS	A	268	-8.104	25.692	-2.209	1.00	35.23
ATOM	2010	CE	LYS	A	268	-9.065	26.845	-2.493	1.00	39.80
ATOM	2011	NZ	LYS	A	268	-9.302	27.654	-1.258	1.00	42.30
ATOM	2012	C	LYS	A	268	-4.995	26.373	-6.115	1.00	20.26
ATOM	2013	O	LYS	A	268	-3.762	26.340	-6.077	1.00	20.14
ATOM	2014	N	ASP	A	269	-5.653	27.329	-6.766	1.00	20.67
ATOM	2015	CA	ASP	A	269	-4.923	28.431	-7.379	1.00	22.23
ATOM	2016	CB	ASP	A	269	-5.354	28.695	-8.824	1.00	21.86
ATOM	2017	CG	ASP	A	269	-6.802	29.136	-8.948	1.00	24.01
ATOM	2018	OD1	ASP	A	269	-7.478	29.270	-7.910	1.00	23.82
ATOM	2019	OD2	ASP	A	269	-7.315	29.358	-10.081	1.00	25.17
ATOM	2020	C	ASP	A	269	-4.936	29.704	-6.561	1.00	21.37
ATOM	2021	O	ASP	A	269	-4.671	30.783	-7.086	1.00	20.35
ATOM	2022	N	SER	A	270	-5.235	29.557	-5.272	1.00	22.33
ATOM	2023	CA	SER	A	270	-5.009	30.638	-4.323	1.00	20.47
ATOM	2024	CB	SER	A	270	-6.278	31.451	-4.075	1.00	24.06
ATOM	2025	OG	SER	A	270	-7.314	30.640	-3.578	1.00	26.40
ATOM	2026	C	SER	A	270	-4.518	30.042	-3.018	1.00	21.38
ATOM	2027	O	SER	A	270	-4.735	28.852	-2.739	1.00	22.73

**FIGURE 291**

ATOM	2028	N	VAL	A	271	-3.885	30.903	-2.225	1.00	22.36
ATOM	2029	CA	VAL	A	271	-3.263	30.508	-0.963	1.00	21.09
ATOM	2030	CB	VAL	A	271	-1.709	30.463	-1.115	1.00	19.31
ATOM	2031	CG1	VAL	A	271	-1.167	31.865	-1.450	1.00	21.60
ATOM	2032	CG2	VAL	A	271	-1.082	29.972	0.200	1.00	21.85
ATOM	2033	C	VAL	A	271	-3.688	31.549	0.072	1.00	20.22
ATOM	2034	O	VAL	A	271	-3.787	32.736	-0.240	1.00	22.08
ATOM	2035	N	ASP	A	272	-3.917	31.112	1.310	1.00	20.16
ATOM	2036	CA	ASP	A	272	-4.471	32.003	2.324	1.00	19.60
ATOM	2037	CB	ASP	A	272	-5.965	31.714	2.437	1.00	19.30
ATOM	2038	CG	ASP	A	272	-6.676	32.598	3.431	1.00	19.17
ATOM	2039	OD1	ASP	A	272	-6.077	33.593	3.891	1.00	21.60
ATOM	2040	OD2	ASP	A	272	-7.859	32.350	3.783	1.00	24.88
ATOM	2041	C	ASP	A	272	-3.744	31.805	3.655	1.00	20.36
ATOM	2042	O	ASP	A	272	-4.243	31.163	4.591	1.00	20.38
ATOM	2043	N	ILE	A	273	-2.541	32.365	3.720	1.00	19.70
ATOM	2044	CA	ILE	A	273	-1.760	32.311	4.942	1.00	19.19
ATOM	2045	CB	ILE	A	273	-0.381	32.962	4.720	1.00	18.60
ATOM	2046	CG1	ILE	A	273	0.333	32.288	3.548	1.00	21.27
ATOM	2047	CD1	ILE	A	273	1.729	32.865	3.275	1.00	22.60
ATOM	2048	CG2	ILE	A	273	0.464	32.875	5.999	1.00	20.66
ATOM	2049	C	ILE	A	273	-2.477	32.966	6.107	1.00	20.28
ATOM	2050	O	ILE	A	273	-2.472	32.424	7.218	1.00	18.55
ATOM	2051	N	TYR	A	274	-3.100	34.117	5.869	1.00	18.83
ATOM	2052	CA	TYR	A	274	-3.766	34.840	6.953	1.00	21.01
ATOM	2053	CB	TYR	A	274	-4.367	36.112	6.356	1.00	19.87
ATOM	2054	CG	TYR	A	274	-5.067	36.972	7.358	1.00	18.97
ATOM	2055	CD1	TYR	A	274	-4.394	38.025	7.954	1.00	21.35
ATOM	2056	CE1	TYR	A	274	-5.029	38.859	8.864	1.00	25.25
ATOM	2057	CZ	TYR	A	274	-6.352	38.625	9.157	1.00	28.87
ATOM	2058	OH	TYR	A	274	-6.978	39.454	10.070	1.00	34.66
ATOM	2059	CE2	TYR	A	274	-7.051	37.579	8.579	1.00	26.00
ATOM	2060	CD2	TYR	A	274	-6.413	36.757	7.669	1.00	22.43
ATOM	2061	C	TYR	A	274	-4.875	33.977	7.550	1.00	21.55
ATOM	2062	O	TYR	A	274	-4.991	33.834	8.776	1.00	22.52
ATOM	2063	N	GLY	A	275	-5.625	33.326	6.671	1.00	19.33
ATOM	2064	CA	GLY	A	275	-6.741	32.496	7.090	1.00	19.21
ATOM	2065	C	GLY	A	275	-6.245	31.272	7.837	1.00	20.79
ATOM	2066	O	GLY	A	275	-6.889	30.859	8.796	1.00	22.44
ATOM	2067	N	ALA	A	276	-5.125	30.692	7.398	1.00	18.85
ATOM	2068	CA	ALA	A	276	-4.558	29.525	8.094	1.00	20.03
ATOM	2069	CB	ALA	A	276	-3.324	29.022	7.356	1.00	20.07
ATOM	2070	C	ALA	A	276	-4.195	29.870	9.542	1.00	19.85
ATOM	2071	O	ALA	A	276	-4.432	29.103	10.479	1.00	20.22
ATOM	2072	N	VAL	A	277	-3.537	31.010	9.719	1.00	19.70
ATOM	2073	CA	VAL	A	277	-3.115	31.387	11.057	1.00	19.31
ATOM	2074	CB	VAL	A	277	-2.121	32.548	11.018	1.00	17.79
ATOM	2075	CG1	VAL	A	277	-1.820	32.967	12.458	1.00	18.22
ATOM	2076	CG2	VAL	A	277	-0.848	32.152	10.255	1.00	18.41
ATOM	2077	C	VAL	A	277	-4.346	31.757	11.868	1.00	19.90
ATOM	2078	O	VAL	A	277	-4.474	31.347	13.019	1.00	20.30
ATOM	2079	N	HIS	A	278	-5.241	32.548	11.292	1.00	19.02

**FIGURE 292**



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ATOM	2080	CA	HIS	A	278	-6.516	32.865	11.948	1.00	19.17
ATOM	2081	CB	HIS	A	278	-7.444	33.619	10.992	1.00	19.25
ATOM	2082	CG	HIS	A	278	-8.751	33.994	11.601	1.00	18.26
ATOM	2083	ND1	HIS	A	278	-9.794	33.105	11.749	1.00	23.05
ATOM	2084	CE1	HIS	A	278	-10.818	33.721	12.311	1.00	21.29
ATOM	2085	NE2	HIS	A	278	-10.478	34.980	12.522	1.00	22.86
ATOM	2086	CD2	HIS	A	278	-9.189	35.176	12.093	1.00	20.74
ATOM	2087	C	HIS	A	278	-7.203	31.605	12.495	1.00	17.84
ATOM	2088	O	HIS	A	278	-7.537	31.525	13.680	1.00	18.09
ATOM	2089	N	ASP	A	279	-7.350	30.601	11.635	1.00	18.49
ATOM	2090	CA	ASP	A	279	-8.101	29.403	11.989	1.00	19.79
ATOM	2091	CB	ASP	A	279	-8.327	28.536	10.749	1.00	21.91
ATOM	2092	CG	ASP	A	279	-9.382	29.137	9.805	1.00	27.33
ATOM	2093	OD1	ASP	A	279	-10.122	30.086	10.181	1.00	32.69
ATOM	2094	OD2	ASP	A	279	-9.571	28.698	8.663	1.00	32.10
ATOM	2095	C	ASP	A	279	-7.376	28.645	13.092	1.00	19.96
ATOM	2096	O	ASP	A	279	-8.023	28.185	14.024	1.00	21.76
ATOM	2097	N	LEU	A	280	-6.040	28.527	13.041	1.00	17.01
ATOM	2098	CA	LEU	A	280	-5.330	27.942	14.182	1.00	16.07
ATOM	2099	CB	LEU	A	280	-3.826	27.947	13.886	1.00	15.00
ATOM	2100	CG	LEU	A	280	-3.422	27.038	12.707	1.00	18.81
ATOM	2101	CD1	LEU	A	280	-1.913	27.070	12.480	1.00	18.81
ATOM	2102	CD2	LEU	A	280	-3.882	25.608	12.945	1.00	25.24
ATOM	2103	C	LEU	A	280	-5.569	28.675	15.513	1.00	16.26
ATOM	2104	O	LEU	A	280	-5.712	28.053	16.564	1.00	16.85
ATOM	2105	N	ARG	A	281	-5.589	30.004	15.476	1.00	15.08
ATOM	2106	CA	ARG	A	281	-5.688	30.743	16.716	1.00	17.44
ATOM	2107	CB	ARG	A	281	-5.378	32.206	16.447	1.00	17.50
ATOM	2108	CG	ARG	A	281	-3.897	32.412	16.278	1.00	17.29
ATOM	2109	CD	ARG	A	281	-3.452	33.863	16.134	1.00	16.44
ATOM	2110	NE	ARG	A	281	-1.994	33.944	15.966	1.00	16.47
ATOM	2111	CZ	ARG	A	281	-1.298	35.076	15.842	1.00	18.10
ATOM	2112	NH1	ARG	A	281	-1.939	36.226	15.915	1.00	21.62
ATOM	2113	NH2	ARG	A	281	0.034	35.066	15.648	1.00	18.29
ATOM	2114	C	ARG	A	281	-7.060	30.626	17.353	1.00	17.49
ATOM	2115	O	ARG	A	281	-7.199	30.854	18.553	1.00	19.29
ATOM	2116	N	LEU	A	282	-8.062	30.261	16.560	1.00	18.15
ATOM	2117	CA	LEU	A	282	-9.358	29.983	17.142	1.00	17.68
ATOM	2118	CB	LEU	A	282	-10.396	29.682	16.062	1.00	16.99
ATOM	2119	CG	LEU	A	282	-10.801	30.873	15.182	1.00	19.43
ATOM	2120	CD1	LEU	A	282	-11.737	30.362	14.090	1.00	25.48
ATOM	2121	CD2	LEU	A	282	-11.501	31.952	16.018	1.00	24.65
ATOM	2122	C	LEU	A	282	-9.279	28.793	18.102	1.00	19.14
ATOM	2123	O	LEU	A	282	-10.141	28.668	18.977	1.00	19.96
ATOM	2124	N	HIS	A	283	-8.293	27.918	17.896	1.00	17.18
ATOM	2125	CA	HIS	A	283	-8.277	26.637	18.601	1.00	18.07
ATOM	2126	CB	HIS	A	283	-8.139	25.490	17.597	1.00	18.24
ATOM	2127	CG	HIS	A	283	-9.231	25.476	16.585	1.00	19.11
ATOM	2128	ND1	HIS	A	283	-10.466	24.910	16.822	1.00	23.60
ATOM	2129	CE1	HIS	A	283	-11.231	25.064	15.756	1.00	19.21
ATOM	2130	NE2	HIS	A	283	-10.545	25.722	14.844	1.00	24.32
ATOM	2131	CD2	HIS	A	283	-9.296	26.007	15.343	1.00	23.68

**FIGURE 293**

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ATOM	2132	C	HIS	A	283	-7.254	26.512	19.707	1.00	17.83
ATOM	2133	O	HIS	A	283	-7.428	25.694	20.622	1.00	18.19
ATOM	2134	N	ARG	A	284	-6.201	27.314	19.637	1.00	17.80
ATOM	2135	CA	ARG	A	284	-5.240	27.348	20.746	1.00	18.49
ATOM	2136	CB	ARG	A	284	-4.226	26.210	20.609	1.00	18.69
ATOM	2137	CG	ARG	A	284	-3.276	26.099	21.796	1.00	18.21
ATOM	2138	CD	ARG	A	284	-2.402	24.878	21.679	1.00	19.61
ATOM	2139	NE	ARG	A	284	-1.291	24.852	22.639	1.00	17.43
ATOM	2140	CZ	ARG	A	284	-1.355	24.269	23.836	1.00	15.60
ATOM	2141	NH1	ARG	A	284	-2.509	23.773	24.275	1.00	16.53
ATOM	2142	NH2	ARG	A	284	-0.290	24.237	24.619	1.00	17.46
ATOM	2143	C	ARG	A	284	-4.530	28.695	20.752	1.00	17.37
ATOM	2144	O	ARG	A	284	-4.367	29.323	19.707	1.00	16.68
ATOM	2145	N	VAL	A	285	-4.142	29.123	21.941	1.00	16.77
ATOM	2146	CA	VAL	A	285	-3.720	30.502	22.158	1.00	18.62
ATOM	2147	CB	VAL	A	285	-3.294	30.774	23.616	1.00	18.24
ATOM	2148	CG1	VAL	A	285	-2.160	29.860	24.061	1.00	18.15
ATOM	2149	CG2	VAL	A	285	-2.946	32.249	23.792	1.00	21.76
ATOM	2150	C	VAL	A	285	-2.599	30.925	21.225	1.00	19.42
ATOM	2151	O	VAL	A	285	-1.503	30.358	21.256	1.00	20.43
ATOM	2152	N	HIS	A	286	-2.914	31.919	20.395	1.00	21.27
ATOM	2153	CA	HIS	A	286	-1.916	32.671	19.615	1.00	22.02
ATOM	2154	CB	HIS	A	286	-1.237	33.690	20.547	1.00	20.50
ATOM	2155	CG	HIS	A	286	-0.509	34.803	19.848	1.00	23.00
ATOM	2156	ND1	HIS	A	286	0.558	34.583	19.001	1.00	22.19
ATOM	2157	CE1	HIS	A	286	0.997	35.742	18.539	1.00	28.42
ATOM	2158	NE2	HIS	A	286	0.299	36.711	19.104	1.00	23.08
ATOM	2159	CD2	HIS	A	286	-0.660	36.149	19.920	1.00	25.08
ATOM	2160	C	HIS	A	286	-0.937	31.748	18.880	1.00	20.60
ATOM	2161	O	HIS	A	286	0.249	32.021	18.774	1.00	22.19
ATOM	2162	N	MET	A	287	-1.425	30.634	18.328	1.00	19.66
ATOM	2163	CA	MET	A	287	-0.622	29.854	17.395	1.00	20.00
ATOM	2164	CB	MET	A	287	-1.505	28.919	16.577	1.00	21.36
ATOM	2165	CG	MET	A	287	-2.213	27.872	17.401	1.00	22.55
ATOM	2166	SD	MET	A	287	-1.075	26.566	17.823	1.00	40.15
ATOM	2167	CE	MET	A	287	-1.223	27.071	19.109	1.00	6.08
ATOM	2168	C	MET	A	287	0.133	30.710	16.385	1.00	20.09
ATOM	2169	O	MET	A	287	-0.471	31.515	15.681	1.00	20.94
ATOM	2170	N	VAL	A	288	1.422	30.424	16.237	1.00	19.63
ATOM	2171	CA	VAL	A	288	2.388	31.249	15.511	1.00	18.83
ATOM	2172	CB	VAL	A	288	1.962	31.725	14.093	1.00	17.58
ATOM	2173	CG1	VAL	A	288	3.180	32.328	13.410	1.00	18.31
ATOM	2174	CG2	VAL	A	288	1.542	30.563	13.204	1.00	17.78
ATOM	2175	C	VAL	A	288	2.758	32.425	16.439	1.00	18.47
ATOM	2176	O	VAL	A	288	1.937	33.283	16.710	1.00	20.51
ATOM	2177	N	GLN	A	289	3.970	32.397	16.978	1.00	20.96
ATOM	2178	CA	GLN	A	289	4.275	33.242	18.136	1.00	22.85
ATOM	2179	CB	GLN	A	289	5.360	32.573	18.989	1.00	23.05
ATOM	2180	CG	GLN	A	289	5.711	33.382	20.255	1.00	23.08
ATOM	2181	CD	GLN	A	289	6.940	32.853	20.982	1.00	24.28
ATOM	2182	OE1	GLN	A	289	7.913	32.445	20.361	1.00	27.56
ATOM	2183	NE2	GLN	A	289	6.888	32.843	22.309	1.00	23.63

**FIGURE 294**

ATOM	2184	C	GLN	A	289	4.723	34.660	17.707	1.00	24.40
ATOM	2185	O	GLN	A	289	4.391	35.649	18.378	1.00	23.35
ATOM	2186	N	THR	A	290	5.492	34.737	16.617	1.00	26.49
ATOM	2187	CA	THR	A	290	6.172	35.968	16.207	1.00	25.39
ATOM	2188	CB	THR	A	290	7.702	35.856	16.359	1.00	26.91
ATOM	2189	OG1	THR	A	290	8.244	35.042	15.307	1.00	28.99
ATOM	2190	CG2	THR	A	290	8.109	35.128	17.629	1.00	27.48
ATOM	2191	C	THR	A	290	5.866	36.465	14.801	1.00	26.87
ATOM	2192	O	THR	A	290	5.512	35.692	13.896	1.00	25.17
ATOM	2193	N	GLU	A	291	6.023	37.770	14.595	1.00	25.95
ATOM	2194	CA	GLU	A	291	5.904	38.299	13.242	1.00	26.94
ATOM	2195	CB	GLU	A	291	6.101	39.818	13.221	1.00	28.49
ATOM	2196	CG	GLU	A	291	5.769	40.445	11.874	1.00	26.87
ATOM	2197	CD	GLU	A	291	6.009	41.941	11.858	1.00	36.69
ATOM	2198	OE1	GLU	A	291	7.008	42.378	11.254	1.00	43.24
ATOM	2199	OE2	GLU	A	291	5.212	42.677	12.471	1.00	40.46
ATOM	2200	C	GLU	A	291	6.910	37.609	12.314	1.00	26.09
ATOM	2201	O	GLU	A	291	6.577	37.275	11.174	1.00	25.81
ATOM	2202	N	CYS	A	292	8.123	37.346	12.792	1.00	27.35
ATOM	2203	CA	CYS	A	292	9.115	36.718	11.917	1.00	27.95
ATOM	2204	CB	CYS	A	292	10.448	36.520	12.615	1.00	29.85
ATOM	2205	SG	CYS	A	292	11.241	38.119	12.768	1.00	41.05
ATOM	2206	C	CYS	A	292	8.623	35.388	11.374	1.00	24.32
ATOM	2207	O	CYS	A	292	8.866	35.043	10.217	1.00	21.58
ATOM	2208	N	GLN	A	293	7.928	34.654	12.234	1.00	23.27
ATOM	2209	CA	GLN	A	293	7.384	33.358	11.845	1.00	22.22
ATOM	2210	CB	GLN	A	293	6.829	32.657	13.092	1.00	23.15
ATOM	2211	CG	GLN	A	293	7.935	32.014	13.943	1.00	22.95
ATOM	2212	CD	GLN	A	293	7.497	31.584	15.342	1.00	24.04
ATOM	2213	OE1	GLN	A	293	6.342	31.765	15.721	1.00	21.47
ATOM	2214	NE2	GLN	A	293	8.409	30.964	16.098	1.00	21.01
ATOM	2215	C	GLN	A	293	6.316	33.548	10.766	1.00	21.55
ATOM	2216	O	GLN	A	293	6.228	32.792	9.791	1.00	20.32
ATOM	2217	N	TYR	A	294	5.506	34.586	10.920	1.00	21.97
ATOM	2218	CA	TYR	A	294	4.537	34.924	9.888	1.00	21.49
ATOM	2219	CB	TYR	A	294	3.670	36.091	10.352	1.00	23.10
ATOM	2220	CG	TYR	A	294	2.400	36.319	9.556	1.00	21.89
ATOM	2221	CD1	TYR	A	294	1.379	35.379	9.531	1.00	19.98
ATOM	2222	CE1	TYR	A	294	0.185	35.606	8.862	1.00	22.15
ATOM	2223	CZ	TYR	A	294	0.045	36.772	8.138	1.00	24.71
ATOM	2224	OH	TYR	A	294	-1.116	36.991	7.445	1.00	25.08
ATOM	2225	CE2	TYR	A	294	1.059	37.703	8.118	1.00	22.86
ATOM	2226	CD2	TYR	A	294	2.222	37.489	8.827	1.00	23.52
ATOM	2227	C	TYR	A	294	5.239	35.306	8.576	1.00	22.57
ATOM	2228	O	TYR	A	294	4.786	34.933	7.491	1.00	20.32
ATOM	2229	N	VAL	A	295	6.373	36.001	8.670	1.00	22.24
ATOM	2230	CA	VAL	A	295	7.104	36.358	7.454	1.00	20.86
ATOM	2231	CB	VAL	A	295	8.267	37.326	7.712	1.00	23.76
ATOM	2232	CG1	VAL	A	295	9.018	37.568	6.381	1.00	23.08
ATOM	2233	CG2	VAL	A	295	7.749	38.634	8.308	1.00	23.92
ATOM	2234	C	VAL	A	295	7.640	35.093	6.790	1.00	19.44
ATOM	2235	O	VAL	A	295	7.633	34.973	5.572	1.00	20.82

**FIGURE 295**

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ATOM	2236	N	TYR	A	296	8.078	34.149	7.611	1.00	21.43
ATOM	2237	CA	TYR	A	296	8.763	32.971	7.121	1.00	19.39
ATOM	2238	CB	TYR	A	296	9.281	32.156	8.298	1.00	19.80
ATOM	2239	CG	TYR	A	296	9.911	30.860	7.902	1.00	18.43
ATOM	2240	CD1	TYR	A	296	11.208	30.833	7.381	1.00	18.72
ATOM	2241	CE1	TYR	A	296	11.823	29.631	7.077	1.00	22.90
ATOM	2242	CZ	TYR	A	296	11.154	28.450	7.332	1.00	22.92
ATOM	2243	OH	TYR	A	296	11.728	27.247	7.033	1.00	23.22
ATOM	2244	CE2	TYR	A	296	9.873	28.447	7.854	1.00	21.43
ATOM	2245	CD2	TYR	A	296	9.275	29.644	8.162	1.00	21.11
ATOM	2246	C	TYR	A	296	7.771	32.136	6.320	1.00	18.46
ATOM	2247	O	TYR	A	296	8.157	31.542	5.319	1.00	19.77
ATOM	2248	N	LEU	A	297	6.509	32.096	6.767	1.00	19.80
ATOM	2249	CA	LEU	A	297	5.478	31.346	6.056	1.00	17.52
ATOM	2250	CB	LEU	A	297	4.148	31.412	6.825	1.00	19.78
ATOM	2251	CG	LEU	A	297	4.110	30.542	8.092	1.00	16.59
ATOM	2252	CD1	LEU	A	297	2.768	30.733	8.798	1.00	20.00
ATOM	2253	CD2	LEU	A	297	4.304	29.063	7.757	1.00	18.37
ATOM	2254	C	LEU	A	297	5.311	31.947	4.657	1.00	18.94
ATOM	2255	O	LEU	A	297	5.174	31.247	3.654	1.00	19.58
ATOM	2256	N	HIS	A	298	5.350	33.270	4.588	1.00	19.76
ATOM	2257	CA	HIS	A	298	5.257	33.950	3.290	1.00	19.33
ATOM	2258	CB	HIS	A	298	5.120	35.462	3.508	1.00	20.79
ATOM	2259	CG	HIS	A	298	3.742	35.888	3.889	1.00	19.70
ATOM	2260	ND1	HIS	A	298	3.242	35.727	5.165	1.00	20.71
ATOM	2261	CE1	HIS	A	298	1.991	36.153	5.195	1.00	20.63
ATOM	2262	NE2	HIS	A	298	1.672	36.608	3.998	1.00	23.44
ATOM	2263	CD2	HIS	A	298	2.753	36.453	3.162	1.00	20.17
ATOM	2264	C	HIS	A	298	6.475	33.665	2.410	1.00	18.63
ATOM	2265	O	HIS	A	298	6.333	33.486	1.200	1.00	20.17
ATOM	2266	N	GLN	A	299	7.667	33.627	2.990	1.00	21.31
ATOM	2267	CA	GLN	A	299	8.868	33.309	2.226	1.00	20.83
ATOM	2268	CB	GLN	A	299	10.128	33.492	3.082	1.00	22.50
ATOM	2269	CG	GLN	A	299	10.312	34.954	3.499	1.00	25.27
ATOM	2270	CD	GLN	A	299	11.423	35.135	4.525	1.00	28.26
ATOM	2271	OE1	GLN	A	299	11.557	34.329	5.445	1.00	29.83
ATOM	2272	NE2	GLN	A	299	12.188	36.219	4.403	1.00	26.71
ATOM	2273	C	GLN	A	299	8.769	31.887	1.693	1.00	21.19
ATOM	2274	O	GLN	A	299	9.147	31.646	0.552	1.00	20.84
ATOM	2275	N	CYS	A	300	8.231	30.964	2.490	1.00	19.77
ATOM	2276	CA	CYS	A	300	8.097	29.590	2.021	1.00	21.20
ATOM	2277	CB	CYS	A	300	7.546	28.649	3.111	1.00	21.59
ATOM	2278	SG	CYS	A	300	8.659	28.313	4.496	1.00	21.31
ATOM	2279	C	CYS	A	300	7.227	29.549	0.778	1.00	18.38
ATOM	2280	O	CYS	A	300	7.572	28.916	-0.213	1.00	19.58
ATOM	2281	N	VAL	A	301	6.076	30.207	0.833	1.00	20.07
ATOM	2282	CA	VAL	A	301	5.143	30.161	-0.279	1.00	19.34
ATOM	2283	CB	VAL	A	301	3.831	30.847	0.087	1.00	19.69
ATOM	2284	CG1	VAL	A	301	2.980	31.013	-1.147	1.00	19.02
ATOM	2285	CG2	VAL	A	301	3.082	30.041	1.150	1.00	23.02
ATOM	2286	C	VAL	A	301	5.730	30.824	-1.522	1.00	18.98
ATOM	2287	O	VAL	A	301	5.634	30.294	-2.652	1.00	18.99

**FIGURE 296**

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Three Dimensional Coordinates of HPTPbeta

ATOM	2288	N	ARG	A	302	6.361	31.968	-1.289	1.00	20.60
ATOM	2289	CA	ARG	A	302	7.085	32.662	-2.365	1.00	22.52
ATOM	2290	CB	ARG	A	302	7.807	33.876	-1.811	1.00	23.52
ATOM	2291	CG	ARG	A	302	8.616	34.611	-2.872	1.00	24.32
ATOM	2292	CD	ARG	A	302	9.710	35.455	-2.228	1.00	26.13
ATOM	2293	NE	ARG	A	302	10.667	34.616	-1.520	1.00	31.05
ATOM	2294	CZ	ARG	A	302	11.476	35.050	-0.558	1.00	36.30
ATOM	2295	NH1	ARG	A	302	11.460	36.326	-0.192	1.00	37.18
ATOM	2296	NH2	ARG	A	302	12.305	34.207	0.041	1.00	34.04
ATOM	2297	C	ARG	A	302	8.087	31.777	-3.095	1.00	23.40
ATOM	2298	O	ARG	A	302	8.103	31.755	-4.329	1.00	23.55
ATOM	2299	N	ASP	A	303	8.903	31.055	-2.328	1.00	22.39
ATOM	2300	CA	ASP	A	303	9.904	30.144	-2.863	1.00	22.73
ATOM	2301	CB	ASP	A	303	10.892	29.686	-1.773	1.00	21.26
ATOM	2302	CG	ASP	A	303	11.711	30.827	-1.192	1.00	28.53
ATOM	2303	OD1	ASP	A	303	11.710	31.931	-1.789	1.00	27.62
ATOM	2304	OD2	ASP	A	303	12.386	30.699	-0.137	1.00	26.66
ATOM	2305	C	ASP	A	303	9.338	28.944	-3.632	1.00	20.36
ATOM	2306	O	ASP	A	303	9.838	28.603	-4.712	1.00	21.25
ATOM	2307	N	VAL	A	304	8.284	28.318	-3.106	1.00	20.24
ATOM	2308	CA	VAL	A	304	7.656	27.200	-3.805	1.00	19.03
ATOM	2309	CB	VAL	A	304	6.506	26.614	-2.948	1.00	21.99
ATOM	2310	CG1	VAL	A	304	5.687	25.599	-3.724	1.00	21.81
ATOM	2311	CG2	VAL	A	304	7.116	25.982	-1.713	1.00	22.11
ATOM	2312	C	VAL	A	304	7.141	27.710	-5.149	1.00	19.92
ATOM	2313	O	VAL	A	304	7.322	27.066	-6.197	1.00	21.24
ATOM	2314	N	LEU	A	305	6.459	28.851	-5.112	1.00	18.22
ATOM	2315	CA	LEU	A	305	5.836	29.364	-6.332	1.00	20.56
ATOM	2316	CB	LEU	A	305	4.844	30.480	-6.012	1.00	17.57
ATOM	2317	CG	LEU	A	305	3.557	30.008	-5.320	1.00	19.17
ATOM	2318	CD1	LEU	A	305	2.712	31.253	-4.985	1.00	19.55
ATOM	2319	CD2	LEU	A	305	2.691	28.974	-6.082	1.00	20.38
ATOM	2320	C	LEU	A	305	6.824	29.794	-7.407	1.00	21.36
ATOM	2321	O	LEU	A	305	6.574	29.576	-8.606	1.00	23.65
ATOM	2322	N	ARG	A	306	7.947	30.358	-6.969	1.00	23.97
ATOM	2323	CA	ARG	A	306	9.014	30.735	-7.913	1.00	23.57
ATOM	2324	CB	ARG	A	306	10.171	31.436	-7.207	1.00	23.85
ATOM	2325	CG	ARG	A	306	9.941	32.875	-6.733	1.00	26.18
ATOM	2326	CD	ARG	A	306	11.158	33.484	-6.039	1.00	35.81
ATOM	2327	NE	ARG	A	306	11.010	34.920	-5.779	1.00	36.91
ATOM	2328	CZ	ARG	A	306	11.865	35.646	-5.060	1.00	37.77
ATOM	2329	NH1	ARG	A	306	12.925	35.079	-4.500	1.00	36.45
ATOM	2330	NH2	ARG	A	306	11.658	36.947	-4.882	1.00	37.40
ATOM	2331	C	ARG	A	306	9.547	29.478	-8.604	1.00	25.69
ATOM	2332	O	ARG	A	306	9.712	29.439	-9.834	1.00	23.35
ATOM	2333	N	ALA	A	307	9.792	28.436	-7.811	1.00	23.29
ATOM	2334	CA	ALA	A	307	10.314	27.185	-8.349	1.00	24.26
ATOM	2335	CB	ALA	A	307	10.556	26.230	-7.205	1.00	24.03
ATOM	2336	C	ALA	A	307	9.354	26.565	-9.344	1.00	22.10
ATOM	2337	O	ALA	A	307	9.740	26.077	-10.410	1.00	22.72
ATOM	2338	N	ARG	A	308	8.068	26.598	-9.008	1.00	20.80
ATOM	2339	CA	ARG	A	308	7.092	25.915	-9.835	1.00	20.00

**FIGURE 297**

ATOM	2340	CB	ARG	A	308	5.774	25.772	-9.075	1.00	21.72
ATOM	2341	CG	ARG	A	308	5.870	24.610	-8.109	1.00	22.26
ATOM	2342	CD	ARG	A	308	4.618	24.345	-7.299	1.00	19.97
ATOM	2343	NE	ARG	A	308	4.902	23.149	-6.503	1.00	24.07
ATOM	2344	CZ	ARG	A	308	4.025	22.542	-5.718	1.00	27.19
ATOM	2345	NH1	ARG	A	308	2.791	23.003	-5.673	1.00	23.93
ATOM	2346	NH2	ARG	A	308	4.377	21.464	-5.012	1.00	28.78
ATOM	2347	C	ARG	A	308	6.876	26.662	-11.139	1.00	22.15
ATOM	2348	O	ARG	A	308	6.699	26.030	-12.176	1.00	21.30
ATOM	2349	N	LYS	A	309	6.953	27.992	-11.082	1.00	21.16
ATOM	2350	CA	LYS	A	309	6.685	28.832	-12.253	1.00	22.32
ATOM	2351	CB	LYS	A	309	6.801	30.333	-11.901	1.00	24.02
ATOM	2352	CG	LYS	A	309	6.508	31.340	-13.040	1.00	29.43
ATOM	2353	CD	LYS	A	309	6.215	32.737	-12.484	1.00	37.46
ATOM	2354	CE	LYS	A	309	5.642	33.687	-13.538	1.00	44.02
ATOM	2355	NZ	LYS	A	309	6.468	34.926	-13.712	1.00	43.80
ATOM	2356	C	LYS	A	309	7.656	28.466	-13.367	1.00	22.56
ATOM	2357	O	LYS	A	309	7.281	28.420	-14.539	1.00	23.42
ATOM	2358	N	LEU	A	310	8.900	28.189	-12.999	1.00	22.00
ATOM	2359	CA	LEU	A	310	9.906	27.866	-14.002	1.00	21.73
ATOM	2360	CB	LEU	A	310	11.289	28.091	-13.409	1.00	21.13
ATOM	2361	CG	LEU	A	310	11.536	29.517	-12.922	1.00	21.73
ATOM	2362	CD1	LEU	A	310	12.995	29.640	-12.487	1.00	22.37
ATOM	2363	CD2	LEU	A	310	11.167	30.510	-14.011	1.00	28.55
ATOM	2364	C	LEU	A	310	9.830	26.446	-14.582	1.00	21.34
ATOM	2365	O	LEU	A	310	10.478	26.145	-15.598	1.00	23.36
ATOM	2366	N	ARG	A	311	9.067	25.580	-13.915	1.00	19.41
ATOM	2367	CA	ARG	A	311	8.862	24.211	-14.373	1.00	19.13
ATOM	2368	CB	ARG	A	311	9.162	23.298	-13.191	1.00	20.37
ATOM	2369	CG	ARG	A	311	10.653	23.321	-12.863	1.00	21.47
ATOM	2370	CD	ARG	A	311	11.008	22.805	-11.476	1.00	24.25
ATOM	2371	NE	ARG	A	311	10.520	21.442	-11.254	1.00	23.85
ATOM	2372	CZ	ARG	A	311	10.688	20.774	-10.127	1.00	22.32
ATOM	2373	NH1	ARG	A	311	11.377	21.330	-9.126	1.00	25.69
ATOM	2374	NH2	ARG	A	311	10.204	19.543	-9.993	1.00	18.91
ATOM	2375	C	ARG	A	311	7.431	23.931	-14.838	1.00	21.21
ATOM	2376	O	ARG	A	311	6.741	24.874	-15.241	1.00	25.92
ATOM	2377	O50	INH	Z	1	4.605	33.376	23.736	1.00	26.83
ATOM	2378	C49	INH	Z	1	4.231	34.382	24.326	1.00	26.06
ATOM	2379	O51	INH	Z	1	2.962	34.991	23.967	1.00	27.49
ATOM	2380	C52	INH	Z	1	1.903	34.307	23.285	1.00	26.93
ATOM	2381	C55	INH	Z	1	0.784	35.332	23.198	1.00	23.29
ATOM	2382	C54	INH	Z	1	2.396	33.902	21.890	1.00	27.36
ATOM	2383	C53	INH	Z	1	1.427	33.119	24.127	1.00	26.28
ATOM	2384	N32	INH	Z	1	4.935	34.973	25.294	1.00	24.59
ATOM	2385	C31	INH	Z	1	6.210	34.438	25.733	1.00	26.22
ATOM	2386	C34	INH	Z	1	6.924	35.626	26.369	1.00	30.49
ATOM	2387	C37	INH	Z	1	7.645	36.501	25.365	1.00	33.76
ATOM	2388	C39	INH	Z	1	7.034	37.645	24.864	1.00	38.94
ATOM	2389	C42	INH	Z	1	7.713	38.450	23.950	1.00	41.70
ATOM	2390	C38	INH	Z	1	9.011	38.126	23.555	1.00	44.11
ATOM	2391	O47	INH	Z	1	9.671	38.890	22.679	1.00	44.40

**FIGURE 298**

ATOM	2392	C41	INH	Z	1	9.626	36.988	24.070	1.00	42.62
ATOM	2393	C40	INH	Z	1	8.945	36.181	24.978	1.00	40.44
ATOM	2394	C28	INH	Z	1	5.891	33.469	26.827	1.00	26.18
ATOM	2395	O30	INH	Z	1	4.821	33.476	27.419	1.00	28.17
ATOM	2396	N19	INH	Z	1	6.822	32.576	27.106	1.00	25.35
ATOM	2397	C11	INH	Z	1	6.586	31.591	28.149	1.00	22.00
ATOM	2398	C20	INH	Z	1	7.939	31.279	28.733	1.00	28.32
ATOM	2399	N22	INH	Z	1	8.016	31.042	30.046	1.00	29.86
ATOM	2400	C23	INH	Z	1	9.185	30.716	30.864	1.00	32.68
ATOM	2401	O21	INH	Z	1	8.902	31.256	27.987	1.00	30.70
ATOM	2402	C66	INH	Z	1	5.982	30.345	27.471	1.00	23.98
ATOM	2403	C7	INH	Z	1	6.449	29.951	26.074	1.00	24.27
ATOM	2404	C4	INH	Z	1	5.750	30.388	24.950	1.00	22.11
ATOM	2405	C2	INH	Z	1	6.147	30.039	23.651	1.00	23.96
ATOM	2406	C3	INH	Z	1	7.564	29.129	25.869	1.00	22.36
ATOM	2407	C6	INH	Z	1	7.945	28.794	24.569	1.00	19.47
ATOM	2408	C5	INH	Z	1	7.273	29.237	23.440	1.00	24.64
ATOM	2409	N9	INH	Z	1	7.676	28.877	22.190	1.00	20.59
ATOM	2410	S14	INH	Z	1	7.262	27.472	21.482	1.00	19.91
ATOM	2411	O15	INH	Z	1	7.837	26.333	22.230	1.00	20.79
ATOM	2412	O16	INH	Z	1	7.744	27.509	20.095	1.00	20.74
ATOM	2413	O17	INH	Z	1	5.777	27.520	21.588	1.00	19.08
ATOM	2414	O1	HOH	W	1	-11.455	19.036	16.241	1.00	11.20
ATOM	2415	O1	HOH	W	2	10.092	17.907	-7.247	1.00	15.97
ATOM	2416	O1	HOH	W	3	6.980	17.279	36.265	1.00	18.93
ATOM	2417	O1	HOH	W	4	12.344	25.665	-10.547	1.00	26.47
ATOM	2418	O1	HOH	W	5	-0.391	18.120	30.610	1.00	15.54
ATOM	2419	O1	HOH	W	6	-12.910	27.809	25.785	1.00	18.19
ATOM	2420	O1	HOH	W	7	16.795	17.314	22.020	1.00	20.81
ATOM	2421	O1	HOH	W	8	10.903	18.975	31.456	1.00	19.26
ATOM	2422	O1	HOH	W	9	12.441	11.024	16.607	1.00	18.44
ATOM	2423	O1	HOH	W	10	-5.476	27.892	24.187	1.00	18.18
ATOM	2424	O1	HOH	W	11	-5.638	29.457	-12.183	1.00	22.91
ATOM	2425	O1	HOH	W	12	-5.887	32.377	20.291	1.00	20.26
ATOM	2426	O1	HOH	W	13	12.670	1.352	23.922	1.00	21.55
ATOM	2427	O1	HOH	W	14	-2.209	18.671	-7.515	1.00	17.26
ATOM	2428	O1	HOH	W	15	-7.454	18.582	28.843	1.00	18.21
ATOM	2429	O1	HOH	W	16	-8.860	24.488	29.900	1.00	19.86
ATOM	2430	O1	HOH	W	17	-2.830	35.618	3.268	1.00	21.86
ATOM	2431	O1	HOH	W	18	18.579	15.179	13.609	1.00	26.92
ATOM	2432	O1	HOH	W	19	-4.688	14.506	34.209	1.00	22.07
ATOM	2433	O1	HOH	W	20	2.105	17.068	26.391	1.00	16.42
ATOM	2434	O1	HOH	W	21	4.863	29.127	33.970	1.00	21.17
ATOM	2435	O1	HOH	W	22	-3.568	19.852	7.077	1.00	22.18
ATOM	2436	O1	HOH	W	23	-5.576	3.087	15.955	1.00	26.29
ATOM	2437	O1	HOH	W	24	-12.917	17.205	18.619	1.00	22.65
ATOM	2438	O1	HOH	W	25	18.698	13.470	17.368	1.00	27.43
ATOM	2439	O1	HOH	W	26	1.962	17.321	29.108	1.00	20.96
ATOM	2440	O1	HOH	W	27	2.295	24.954	29.144	1.00	19.64
ATOM	2441	O1	HOH	W	28	-1.602	16.134	32.029	1.00	21.50
ATOM	2442	O1	HOH	W	29	-0.729	38.734	15.728	1.00	29.29
ATOM	2443	O1	HOH	W	30	-7.527	23.769	23.695	1.00	24.34

**FIGURE 299**

ATOM	2444	O1	HOH W	31	14.282	22.365	16.948	1.00	22.99
ATOM	2445	O1	HOH W	32	-1.604	32.781	-14.649	1.00	27.92
ATOM	2446	O1	HOH W	33	-8.734	34.148	26.134	1.00	25.36
ATOM	2447	O1	HOH W	34	8.370	30.039	18.987	1.00	21.01
ATOM	2448	O1	HOH W	35	14.794	1.864	27.548	1.00	28.16
ATOM	2449	O1	HOH W	36	-10.739	27.532	37.044	1.00	24.62
ATOM	2450	O1	HOH W	37	-7.059	1.474	21.471	1.00	25.62
ATOM	2451	O1	HOH W	38	-11.234	14.555	24.148	1.00	23.76
ATOM	2452	O1	HOH W	39	4.445	10.833	33.936	1.00	24.00
ATOM	2453	O1	HOH W	40	7.644	22.182	-5.700	1.00	31.73
ATOM	2454	O1	HOH W	41	-9.581	18.385	34.798	1.00	27.77
ATOM	2455	O1	HOH W	42	-3.762	2.958	27.993	1.00	25.67
ATOM	2456	O1	HOH W	43	16.682	28.017	20.896	1.00	27.72
ATOM	2457	O1	HOH W	44	1.889	20.014	3.611	1.00	25.02
ATOM	2458	O1	HOH W	45	1.627	25.550	-6.758	1.00	34.05
ATOM	2459	O1	HOH W	46	0.286	7.549	9.166	1.00	38.49
ATOM	2460	O1	HOH W	47	-3.896	24.915	37.139	1.00	26.95
ATOM	2461	O1	HOH W	48	15.746	30.134	2.550	1.00	25.69
ATOM	2462	O1	HOH W	49	-5.568	10.500	33.186	1.00	28.26
ATOM	2463	O1	HOH W	50	-1.650	34.023	1.496	1.00	26.31
ATOM	2464	O1	HOH W	51	-7.652	10.717	25.362	1.00	28.32
ATOM	2465	O1	HOH W	52	0.328	0.370	13.309	1.00	27.61
ATOM	2466	O1	HOH W	53	15.355	1.106	30.215	1.00	30.33
ATOM	2467	O1	HOH W	54	10.015	24.503	30.496	1.00	29.94
ATOM	2468	O1	HOH W	55	-11.943	35.367	17.617	1.00	28.12
ATOM	2469	O1	HOH W	56	-4.357	-4.311	17.098	1.00	30.10
ATOM	2470	O1	HOH W	57	-1.130	26.109	35.655	1.00	35.14
ATOM	2471	O1	HOH W	58	6.603	33.740	-5.667	1.00	34.26
ATOM	2472	O1	HOH W	59	-11.191	21.716	18.000	1.00	28.53
ATOM	2473	O1	HOH W	60	4.005	20.176	-0.974	1.00	28.49
ATOM	2474	O1	HOH W	61	15.234	25.407	33.117	1.00	33.69
ATOM	2475	O1	HOH W	62	16.720	13.787	18.961	1.00	30.06
ATOM	2476	O1	HOH W	63	17.985	26.085	10.889	1.00	35.47
ATOM	2477	O1	HOH W	64	-4.391	35.179	19.227	1.00	26.34
ATOM	2478	O1	HOH W	65	-10.126	3.407	31.678	1.00	37.24
ATOM	2479	O1	HOH W	66	13.041	23.718	-8.522	1.00	26.67
ATOM	2480	O1	HOH W	67	15.808	27.630	0.948	1.00	31.53
ATOM	2481	O1	HOH W	68	-5.194	14.828	38.851	1.00	32.15
ATOM	2482	O1	HOH W	69	-2.993	14.561	10.647	1.00	27.57
ATOM	2483	O1	HOH W	70	4.460	25.794	-13.772	1.00	29.85
ATOM	2484	O1	HOH W	71	-1.043	10.807	12.546	1.00	36.09
ATOM	2485	O1	HOH W	72	5.955	25.591	-17.688	1.00	35.00
ATOM	2486	O1	HOH W	73	-4.797	23.062	3.425	1.00	23.14
ATOM	2487	O1	HOH W	74	12.930	17.207	31.823	1.00	25.65
ATOM	2488	O1	HOH W	75	14.465	31.814	0.729	1.00	29.17
ATOM	2489	O1	HOH W	76	11.351	8.765	29.000	1.00	29.76
ATOM	2490	O1	HOH W	77	-3.463	15.346	8.038	1.00	33.01
ATOM	2491	O1	HOH W	78	9.188	38.767	15.085	1.00	31.31
ATOM	2492	O1	HOH W	79	-2.414	9.596	32.635	1.00	44.49
ATOM	2493	O1	HOH W	80	-4.993	26.536	9.601	1.00	32.37
ATOM	2494	O1	HOH W	81	-15.925	15.529	11.947	1.00	25.86
ATOM	2495	O1	HOH W	82	-12.382	18.790	35.935	1.00	34.44

**FIGURE 300**



ATOM	2496	O1	HOH	W	83	2.705	48.628	10.273	1.00	40.15
ATOM	2497	O1	HOH	W	84	-13.564	21.329	28.598	1.00	31.01
ATOM	2498	O1	HOH	W	85	6.479	39.636	16.774	1.00	32.83
ATOM	2499	O1	HOH	W	86	14.961	4.598	28.207	1.00	29.83
ATOM	2500	O1	HOH	W	87	18.504	19.104	23.863	1.00	28.45
ATOM	2501	O1	HOH	W	88	10.773	20.142	-0.695	1.00	35.21
ATOM	2502	O1	HOH	W	89	3.708	16.397	0.920	1.00	38.22
ATOM	2503	O1	HOH	W	90	-4.973	37.993	-5.374	1.00	31.06
ATOM	2504	O1	HOH	W	91	22.103	24.540	26.314	1.00	35.14
ATOM	2505	O1	HOH	W	92	10.864	34.785	14.518	1.00	48.98
ATOM	2506	O1	HOH	W	93	-12.541	12.084	30.086	1.00	37.23
ATOM	2507	O1	HOH	W	94	13.549	-1.341	30.361	1.00	38.12
ATOM	2508	O1	HOH	W	95	-3.286	-3.603	24.358	1.00	30.37
ATOM	2509	O1	HOH	W	96	-0.950	37.575	3.392	1.00	26.13
ATOM	2510	O1	HOH	W	97	2.862	18.800	1.412	1.00	26.47
ATOM	2511	O1	HOH	W	98	2.741	4.340	11.947	1.00	42.25
ATOM	2512	O1	HOH	W	99	1.437	11.596	33.660	1.00	33.67
ATOM	2513	O1	HOH	W	100	-4.898	17.123	5.233	1.00	30.59
ATOM	2514	O1	HOH	W	101	-0.328	39.659	22.285	1.00	37.92
ATOM	2515	O1	HOH	W	102	0.457	18.578	-0.352	1.00	32.32
ATOM	2516	O1	HOH	W	103	15.238	15.465	29.462	1.00	35.78
ATOM	2517	O1	HOH	W	104	12.139	22.090	-0.159	1.00	34.03
ATOM	2518	O1	HOH	W	105	-14.864	19.163	30.964	1.00	32.43
ATOM	2519	O1	HOH	W	106	-14.505	20.555	25.186	1.00	29.82
ATOM	2520	O1	HOH	W	107	3.363	34.814	-7.718	1.00	34.48
ATOM	2521	O1	HOH	W	108	-13.197	17.085	34.279	1.00	38.85
ATOM	2522	O1	HOH	W	109	-1.443	5.382	31.117	1.00	38.54
ATOM	2523	O1	HOH	W	110	-0.120	14.286	35.601	1.00	31.88
ATOM	2524	O1	HOH	W	111	9.032	-5.844	19.709	1.00	36.70
ATOM	2525	O1	HOH	W	112	11.379	24.876	-1.986	1.00	43.81
ATOM	2526	O1	HOH	W	113	12.352	38.057	2.063	1.00	31.64
ATOM	2527	O1	HOH	W	114	-5.579	7.024	7.334	1.00	39.14
ATOM	2528	O1	HOH	W	115	-6.985	29.910	-0.433	1.00	41.07
ATOM	2529	O1	HOH	W	116	5.045	33.328	-8.532	1.00	37.73
ATOM	2530	O1	HOH	W	117	8.662	12.116	1.108	1.00	39.77
ATOM	2531	O1	HOH	W	118	-6.293	5.912	32.542	1.00	30.14
ATOM	2532	O1	HOH	W	119	-13.725	11.954	27.110	1.00	39.76
ATOM	2533	O1	HOH	W	120	16.415	8.189	22.223	1.00	29.43
ATOM	2534	O1	HOH	W	121	-12.645	19.481	23.348	1.00	31.08
ATOM	2535	O1	HOH	W	122	-13.636	39.606	9.864	1.00	39.73
ATOM	2536	O1	HOH	W	123	-11.065	7.560	40.828	1.00	45.73
ATOM	2537	O1	HOH	W	124	-8.777	3.390	20.560	1.00	36.17
ATOM	2538	O1	HOH	W	125	3.379	22.820	-2.032	1.00	27.89
ATOM	2539	O1	HOH	W	126	-11.598	14.866	35.138	1.00	32.20
ATOM	2540	O1	HOH	W	127	-0.940	19.672	39.788	1.00	33.34
ATOM	2541	O1	HOH	W	128	15.163	-4.713	22.940	1.00	36.19
ATOM	2542	O1	HOH	W	129	-0.987	26.949	-6.156	1.00	36.12
ATOM	2543	O1	HOH	W	130	10.863	12.854	1.718	1.00	34.61
ATOM	2544	O1	HOH	W	131	14.478	36.267	1.695	1.00	41.25
ATOM	2545	O1	HOH	W	132	15.776	23.818	18.687	1.00	35.61
ATOM	2546	O1	HOH	W	133	21.161	7.231	12.795	1.00	32.15
ATOM	2547	O1	HOH	W	134	22.887	22.904	29.299	1.00	36.68

FIGURE 301

ATOM	2548	O1	HOH W 135	3.909	17.363	36.196	1.00	35.35
ATOM	2549	O1	HOH W 136	-12.046	11.064	22.456	1.00	35.04
ATOM	2550	O1	HOH W 137	-12.824	27.211	19.118	1.00	38.04
ATOM	2551	O1	HOH W 138	14.969	31.915	7.579	1.00	35.09
ATOM	2552	O1	HOH W 139	13.443	32.417	-3.827	1.00	44.74
ATOM	2553	O1	HOH W 140	2.776	12.732	37.520	1.00	41.66
ATOM	2554	O1	HOH W 141	-1.350	12.666	37.266	1.00	40.38
ATOM	2555	O1	HOH W 142	3.324	6.477	10.524	1.00	37.22
ATOM	2556	O1	HOH W 143	-16.166	29.270	31.100	1.00	36.51
ATOM	2557	O1	HOH W 144	16.001	-2.359	30.645	1.00	44.06
ATOM	2558	O1	HOH W 145	2.861	45.550	14.180	1.00	45.63
ATOM	2559	O1	HOH W 146	4.593	25.045	35.681	1.00	44.05
ATOM	2560	O1	HOH W 147	-5.762	3.453	30.636	1.00	34.95
ATOM	2561	O1	HOH W 148	-8.031	24.355	12.086	1.00	35.62
ATOM	2562	O1	HOH W 149	-6.652	22.984	-0.071	1.00	31.34
ATOM	2563	O1	HOH W 150	-9.852	26.486	11.576	1.00	53.30
ATOM	2564	O1	HOH W 151	-11.032	13.045	39.495	1.00	41.67
ATOM	2565	O1	HOH W 152	-5.662	-6.734	17.860	1.00	50.02
ATOM	2566	O1	HOH W 153	-14.654	10.777	19.722	1.00	39.18
ATOM	2567	O1	HOH W 154	11.452	35.739	9.234	1.00	31.71
ATOM	2568	O1	HOH W 155	-0.977	7.991	-0.542	1.00	45.59
ATOM	2569	O1	HOH W 156	11.447	44.304	4.341	1.00	42.42
ATOM	2570	O1	HOH W 157	20.425	25.089	10.825	1.00	38.33
ATOM	2571	O1	HOH W 158	-0.478	42.056	23.691	1.00	40.14
ATOM	2572	O1	HOH W 159	-13.365	36.694	5.529	1.00	49.14
ATOM	2573	O1	HOH W 160	15.601	29.777	23.845	1.00	36.82
ATOM	2574	O1	HOH W 161	10.807	30.311	34.040	1.00	40.96
ATOM	2575	O1	HOH W 162	-4.239	12.123	10.131	1.00	32.53
ATOM	2576	O1	HOH W 163	-15.155	30.501	26.593	1.00	34.26
ATOM	2577	O1	HOH W 164	17.868	18.293	5.518	1.00	38.35
ATOM	2578	O1	HOH W 165	-3.791	2.469	10.886	1.00	39.48
ATOM	2579	O1	HOH W 166	-13.791	14.215	31.432	1.00	38.00
ATOM	2580	O1	HOH W 167	0.432	17.497	39.137	1.00	42.73
ATOM	2581	O1	HOH W 168	-17.968	15.461	15.749	1.00	41.59
ATOM	2582	O1	HOH W 169	3.057	38.735	-8.809	1.00	36.15
ATOM	2583	O1	HOH W 170	-13.284	32.522	19.061	1.00	43.72
ATOM	2584	O1	HOH W 171	9.161	39.858	11.511	1.00	61.20
ATOM	2585	O1	HOH W 172	-8.076	25.214	1.277	1.00	34.46
ATOM	2586	O1	HOH W 173	2.413	-7.723	17.535	1.00	50.89
ATOM	2587	O1	HOH W 174	7.967	38.224	-3.285	1.00	35.96
ATOM	2588	O1	HOH W 175	10.930	20.638	33.730	1.00	35.38
ATOM	2589	O1	HOH W 176	4.602	2.675	11.036	1.00	36.17
ATOM	2590	O1	HOH W 177	4.229	47.562	3.051	1.00	39.90
ATOM	2591	O1	HOH W 178	15.151	17.822	29.427	1.00	40.53
ATOM	2592	O1	HOH W 179	-1.974	45.545	5.497	1.00	42.30
ATOM	2593	O1	HOH W 180	-11.790	5.702	19.435	1.00	46.01
ATOM	2594	O1	HOH W 181	-3.116	46.090	12.430	1.00	36.56
ATOM	2595	O1	HOH W 182	-2.855	17.252	-3.365	1.00	46.55
ATOM	2596	O1	HOH W 183	16.937	14.782	22.299	1.00	45.85
ATOM	2597	O1	HOH W 184	15.864	28.547	32.612	1.00	52.60
ATOM	2598	O1	HOH W 185	-12.223	41.151	11.021	1.00	46.56
ATOM	2599	O1	HOH W 186	-3.669	35.551	-11.268	1.00	45.80

**FIGURE 302**

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ATOM	2600	O1	HOH W 187	-13.450	16.205	23.864	1.00	39.99
ATOM	2601	O1	HOH W 188	21.557	8.538	9.074	1.00	32.39
ATOM	2602	O1	HOH W 189	1.733	29.325	-10.520	1.00	44.58
ATOM	2603	O1	HOH W 190	-1.094	24.213	42.979	1.00	44.98
ATOM	2604	O1	HOH W 191	-6.827	4.971	4.805	1.00	47.90
ATOM	2605	O1	HOH W 192	-13.991	33.731	13.221	1.00	40.59
ATOM	2606	O1	HOH W 193	13.588	13.644	-1.450	1.00	40.18
ATOM	2607	O1	HOH W 194	-5.326	32.039	-9.354	1.00	38.33
ATOM	2608	O1	HOH W 195	13.465	33.762	-13.581	1.00	39.35
ATOM	2609	O1	HOH W 196	20.141	-1.476	26.767	1.00	58.47
ATOM	2610	O1	HOH W 197	-13.105	19.480	20.652	1.00	48.59
ATOM	2611	O1	HOH W 198	7.070	7.353	33.532	1.00	49.27
ATOM	2612	O1	HOH W 199	6.799	28.923	-16.944	1.00	51.04
ATOM	2613	O1	HOH W 200	0.389	6.026	29.372	1.00	35.03
ATOM	2614	O1	HOH W 201	8.386	25.655	32.893	1.00	37.20
ATOM	2615	O1	HOH W 202	17.615	-0.073	29.521	1.00	48.46
ATOM	2616	O1	HOH W 203	-6.124	28.880	4.959	1.00	35.61
ATOM	2617	O1	HOH W 204	13.941	6.496	29.759	1.00	53.62
ATOM	2618	O1	HOH W 205	16.954	-0.234	14.375	1.00	37.68
ATOM	2619	O1	HOH W 206	2.522	-7.489	20.961	1.00	44.59
ATOM	2620	O1	HOH W 207	5.703	49.354	10.543	1.00	44.22
ATOM	2621	O1	HOH W 208	-9.111	38.567	12.389	1.00	50.27
ATOM	2622	O1	HOH W 209	-7.236	20.258	6.492	1.00	35.19
ATOM	2623	O1	HOH W 210	8.786	5.463	31.949	1.00	35.74
ATOM	2624	O1	HOH W 211	-7.222	40.672	16.386	1.00	42.49
ATOM	2625	O1	HOH W 212	12.825	34.503	7.617	1.00	38.94
ATOM	2626	O1	HOH W 213	5.590	30.888	31.645	1.00	26.09
ATOM	2627	O1	HOH W 214	9.169	32.503	25.209	1.00	41.71
ATOM	2628	O1	HOH W 215	23.574	26.554	10.071	1.00	56.57
ATOM	2629	O1	HOH W 216	10.056	38.516	-1.760	1.00	38.36
ATOM	2630	O1	HOH W 217	-5.653	23.538	10.071	1.00	39.02
ATOM	2631	O1	HOH W 218	-9.772	39.888	16.597	1.00	39.89
ATOM	2632	O1	HOH W 219	-7.677	22.937	7.244	1.00	48.50
ATOM	2633	O1	HOH W 220	-8.099	10.871	39.914	1.00	44.93
ATOM	2634	O1	HOH W 221	9.902	31.834	22.653	1.00	46.40
ATOM	2635	O1	HOH W 222	3.536	38.208	17.936	1.00	39.89
ATOM	2636	O1	HOH W 223	5.427	12.563	-2.175	1.00	43.37
ATOM	2637	O1	HOH W 224	19.901	17.833	4.495	1.00	39.94
ATOM	2638	O1	HOH W 225	-12.027	36.815	13.817	1.00	44.07
ATOM	2639	O1	HOH W 226	-8.746	32.585	28.696	1.00	48.46
ATOM	2640	O1	HOH W 227	17.914	15.042	24.333	1.00	48.17
ATOM	2641	O1	HOH W 228	-15.428	28.994	22.176	1.00	32.12
ATOM	2642	O1	HOH W 229	-1.184	15.555	39.910	1.00	42.24
ATOM	2643	O1	HOH W 230	1.784	16.997	9.532	1.00	38.28
ATOM	2644	O1	HOH W 231	-4.431	5.259	30.630	1.00	57.46
ATOM	2645	O1	HOH W 232	14.418	34.885	17.296	1.00	49.40
ATOM	2646	O1	HOH W 233	-10.428	31.639	7.906	1.00	38.03
ATOM	2647	O1	HOH W 234	21.073	3.624	22.298	1.00	46.76
ATOM	2648	O1	HOH W 235	9.325	20.879	-6.720	1.00	46.19
ATOM	2649	O1	HOH W 236	10.266	24.192	-17.765	1.00	43.43
ATOM	2650	O1	HOH W 237	2.085	-3.234	15.986	1.00	49.75
ATOM	2651	O1	HOH W 238	-0.063	5.328	10.360	1.00	52.94

**FIGURE 303**

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ATOM	2652	O1	HOH W 239	10.028	22.924	33.652	1.00	45.99
ATOM	2653	O1	HOH W 240	16.681	32.926	16.387	1.00	43.29
ATOM	2654	O1	HOH W 241	7.871	13.034	37.758	1.00	46.97
ATOM	2655	O1	HOH W 242	-7.500	33.136	-10.047	1.00	53.39
ATOM	2656	O1	HOH W 243	20.580	20.554	3.052	1.00	48.18
ATOM	2657	O1	HOH W 244	17.540	25.077	8.214	1.00	43.50
ATOM	2658	O1	HOH W 245	-5.445	39.439	24.106	1.00	43.55
ATOM	2659	O1	HOH W 246	10.166	40.681	14.159	1.00	41.16
ATOM	2660	O1	HOH W 247	19.127	23.993	6.155	1.00	40.29
ATOM	2661	O1	HOH W 248	-5.962	35.247	-11.325	1.00	64.60
ATOM	2662	O1	HOH W 249	-13.021	14.668	4.628	1.00	58.02
ATOM	2663	O1	HOH W 250	-15.666	12.941	32.852	1.00	45.95
ATOM	2664	O1	HOH W 251	-5.827	4.361	28.098	1.00	39.00
ATOM	2665	O1	HOH W 252	-4.508	4.229	4.028	1.00	58.76
ATOM	2666	O1	HOH W 253	-1.679	36.793	-11.023	1.00	54.88
ATOM	2667	O1	HOH W 254	-3.188	12.850	35.709	1.00	44.15
ATOM	2668	O1	HOH W 255	-4.863	46.499	9.267	1.00	47.64
ATOM	2669	O1	HOH W 256	-8.876	14.076	39.968	1.00	49.77
ATOM	2670	O1	HOH W 257	-7.413	15.403	42.092	1.00	56.43
ATOM	2671	O1	HOH W 258	15.526	32.542	13.982	1.00	38.82
ATOM	2672	O1	HOH W 259	16.627	29.755	30.106	1.00	59.92
ATOM	2673	O1	HOH W 260	-6.350	21.495	10.220	1.00	44.14
ATOM	2674	O1	HOH W 261	-10.475	11.052	40.121	1.00	46.63
ATOM	2675	O1	HOH W 262	-16.169	28.237	33.252	1.00	50.35
ATOM	2676	O1	HOH W 263	21.143	26.244	7.273	1.00	49.50
ATOM	2677	O1	HOH W 264	18.544	3.658	19.522	1.00	54.96
ATOM	2678	O1	HOH W 265	-13.057	36.485	10.921	1.00	57.92
ATOM	2679	O1	HOH W 266	-14.213	30.872	7.965	1.00	55.62
ATOM	2680	O1	HOH W 267	23.105	19.120	9.667	1.00	51.70
ATOM	2681	O1	HOH W 268	19.557	23.525	21.545	1.00	55.10
ATOM	2682	O1	HOH W 269	-6.887	8.335	40.062	1.00	53.82
ATOM	2683	O1	HOH W 270	12.547	34.227	22.521	1.00	60.24
ATOM	2684	O1	HOH W 271	-3.101	-0.406	15.411	1.00	43.16
ATOM	2685	O1	HOH W 272	2.686	50.220	2.020	1.00	56.09
ATOM	2686	O1	HOH W 273	-14.257	29.391	17.420	1.00	56.26
ATOM	2687	O1	HOH W 274	-7.269	25.617	22.970	1.00	58.39
ATOM	2688	O1	HOH W 275	-2.828	0.486	9.670	1.00	60.53
ATOM	2689	O1	HOH W 276	9.879	32.192	-10.785	1.00	50.33
ATOM	2690	O1	HOH W 277	-13.291	27.301	37.675	1.00	47.65
ATOM	2691	O1	HOH W 278	9.031	40.412	-7.375	1.00	59.24
ATOM	2692	O1	HOH W 279	21.333	22.702	9.534	1.00	50.34
ATOM	2693	O1	HOH W 280	10.062	2.181	11.069	1.00	63.85
ATOM	2694	O1	HOH W 281	-11.670	11.608	25.465	1.00	48.90
ATOM	2695	O1	HOH W 282	5.882	36.123	22.042	1.00	58.95
ATOM	2696	O1	HOH W 283	-4.121	5.854	34.338	1.00	54.24
ATOM	2697	O1	HOH W 284	-9.020	5.421	40.050	1.00	56.11
END								

FIGURE 304